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Roy Wenzlick
Editor

A concise easily digested periodic analysis based upon scientific research in real estate fundamentals and trends...Constantly measuring and reporting the basic economic factors responsible for changes in trends and values.....Current Studies.... Surveys....Forecasts

VOLUME XV

REAL ESTATE ECONOMISTS, APPRAISERS AND COUNSELORS

THE BUSINESS OUTLOOK

THE twenty-four charts on pages 56 through 59 cover many of the basic barometers of business activity in the United States, including production, employment, wages, cost of living, sales, check transactions, stock prices, construction, real estate, etc. All of the charts show the fluctuations for the period from January 1937 to the last month for which figures are available. On a few of the charts quarterly figures only are available in the earlier period, but on all charts monthly figures are shown during the last few years.

Roughly, the charts can be divided into two groups, the one group showing various physical indexes of production, and the other group showing barometers which are affected by dollar prices. When this division is made it is quite significant that almost all charts showing physical volume of production have been dropping constantly, some at a rather rapid rate, since V-J Day, and those showing dollar figures have almost all been rising. This is clearly a result of the inflationary trends in American business. Dollar prices are rising not only because of the reduced purchasing power of the dollar due to the increase in the number of dollars of currency and credit manufactured by the government during the war, but higher prices are resulting also from the limited production taking place at a time when almost unlimited production is required. The most certain way to prevent inflation from getting out of hand is to produce goods and services at a rapid rate.

If this be true, certainly our national policies during the entire reconversion period have been highly inflationary. At a time when manpower is needed in large quantities for production, we have raised unemployment benefits to the point that in St. Louis and St. Louis County, for example, at the present time we are paying more than 35,000 persons not to work at a time when the USES and other employment agencies are finding it very difficult to send applicants out on jobs. The President is largely to blame for his ill-advised call to labor to strike for higher wages which "were to be paid without increasing prices." Even the Administration no longer stands by such an utterly absurd position. The unions used it at first with their tongue in their cheek, but they, too, are no longer making the claim and are now asking that prices be allowed to rise by a sufficient amount to pay the increased wages. Of course, this increase in prices will be made the excuse for another wage increase, and inflation will thus continue to spiral upward.

Industrial production passed its peak long before the end of the war. After V-E Day it started dropping rapidly and the drop has been continued into 1946 because of labor troubles. By the second quarter of 1946, however, there

(cont. on page 54)

REAL ESTATE TAX *

City	Average Real Estate Tax per Family 1940	Average (median) Annual Rent 1940	Tax as % of Rent	Rank
Akron, Ohio	$ 91.45	$317.16	28.8	17
Albany, N. Y.	212.70	401.76	53.0	70
Atlanta, Ga.	115.20	223.32	51.6	66
Baltimore, Md.	137.80	324.72	42.4	51
Birmingham, Ala.	70.60	184.44	38.3	43
Boston, Mass.	282.00	358.92	78.6	93
Bridgeport, Conn.	135.00	318.48	42.4	52
Buffalo, N. Y.	246.00	334.80	73.5	91
Cambridge, Mass.	227.30	363.36	62.6	84
Camden, N. J.	157.60	284.16	55.5	75
Canton, Ohio	65.80	345.24	19.1	1
Chattanooga, Tenn.	89.20	189.96	47.0	60
Chicago, Ill.	138.30	390.72	35.4	36
Cincinnati, Ohio	117.20	311.04	37.7	41
Cleveland, Ohio	118.00	334.32	35.3	35
Columbus, Ohio	75.20	339.24	22.2	4
Dallas, Tex.	87.00	284.28	30.6	18
Dayton, Ohio	94.90	352.44	26.9	14
Denver, Colo.	102.60	320.88	32.0	23
Des Moines, Iowa	138.50	319.44	43.3	54
Detroit, Mich.	143.00	415.80	34.4	30
Duluth, Minn.	167.20	307.20	54.5	72
Elizabeth, N. J.	195.00	387.84	50.4	64
El Paso, Tex.	89.00	170.04	52.4	69
Erie, Pa.	144.60	296.64	48.7	62
Evansville, Ind.	93.50	269.76	34.7	33
Fall River, Mass.	123.00	210.60	58.4	77
Flint, Mich.	86.30	339.72	25.4	10
Fort Wayne, Ind.	99.75	355.56	28.1	15
Fort Worth, Tex.	109.20	232.80	47.0	61
Gary, Ind.	127.60	360.24	35.4	37
Grand Rapids, Mich.	67.60	287.28	23.6	6
Hartford, Conn.	201.00	393.00	51.1	65
Houston, Tex.	111.75	303.72	36.8	39
Indianapolis, Ind.	105.00	305.88	34.4	31
Jacksonville, Fla.	69.30	225.48	30.8	19
Jersey City, N. J.	289.00	364.68	79.2	94
Kansas City, Kans.	111.15	205.20	54.2	71
Kansas City, Mo.	120.75	294.60	41.0	47
Knoxville, Tenn.	131.00	201.36	65.1	88
Long Beach, Calif.	145.00	348.72	41.6	49
Los Angeles, Calif.	120.60	364.44	33.1	25
Louisville, Ky.	98.25	241.08	40.8	46
Lowell, Mass.	157.90	253.32	62.4	83
Lynn, Mass.	154.50	345.48	44.8	55
Memphis, Tenn.	76.90	195.72	39.3	44
Miami, Fla.	115.40	342.00	33.8	28

*See page 64 for explanation of this table.

REAL ESTATE TAX

City	Average Real Estate Tax per Family 1940	Average (median) Annual Rent 1940	Tax as % of Rent	Rank
Milwaukee, Wis.	$174.00	$387.72	44.9	56
Minneapolis, Minn.	129.20	383.88	33.7	27
Nashville, Tenn.	79.90	194.52	41.1	48
Newark, N. J.	254.00	352.20	72.1	89
New Bedford, Mass.	133.00	220.32	60.4	80
New Haven, Conn.	171.40	312.96	54.8	74
New Orleans, La.	93.00	205.92	45.2	57
New York, N. Y.	238.00	457.20	52.0	67
Norfolk, Va.	89.30	258.00	34.6	32
Oakland, Calif.	113.20	366.24	30.9	20
Oklahoma City, Okla.	58.45	273.24	21.4	2
Omaha, Nebr.	101.20	318.00	31.9	22
Paterson, N. J.	175.60	289.68	60.6	81
Peoria, Ill.	97.80	408.60	24.0	7
Philadelphia, Pa.	140.75	337.20	41.7	50
Pittsburgh, Pa.	221.50	344.64	64.3	87
Portland, Oreg.	117.40	289.44	40.6	45
Providence, R. I.	151.80	277.20	54.7	73
Reading, Pa.	147.00	315.36	46.6	59
Richmond, Va.	99.80	271.68	36.8	40
Rochester, N. Y.	247.70	393.72	63.0	85
St. Louis, Mo.	104.40	275.40	37.9	42
St. Paul, Minn.	134.60	367.56	36.6	38
Salt Lake City, Utah	89.30	337.56	26.5	13
San Antonio, Tex.	85.50	201.48	42.5	53
San Diego, Calif.	113.90	334.20	34.1	29
San Francisco, Calif.	135.75	405.36	33.4	26
Scranton, Pa.	134.60	293.88	45.8	58
Seattle, Wash.	81.60	314.76	25.9	12
Somerville, Mass.	174.60	357.72	48.9	63
South Bend, Ind.	105.60	324.60	32.5	24
Spokane, Wash.	65.40	265.08	24.7	9
Springfield, Mass.	213.00	357.96	59.5	78
Syracuse, N. Y.	220.80	366.24	60.3	79
Tacoma, Wash.	56.50	252.12	22.4	5
Tampa, Fla.	145.30	191.52	75.9	92
Toledo, Ohio	81.20	333.24	24.4	8
Trenton, N. J.	202.30	330.48	61.2	82
Tulsa, Okla.	95.80	307.92	31.1	21
Utica, N. Y.	211.70	291.72	72.6	90
Washington, D. C.	124.10	570.36	21.8	3
Waterbury, Conn.	169.00	324.00	52.1	68
Wichita, Kans.	95.30	270.96	35.2	34
Wilmington, Del.	100.80	393.48	25.6	11
Worcester, Mass.	192.00	331.80	57.9	76
Yonkers, N. Y.	314.60	499.56	63.0	86
Youngstown, Ohio	103.60	364.56	28.4	16

(cont. from page 51)

should be sufficient pressure behind demand and enough ingenuity on the part of management to cause industrial production to rise in spite of the retarding effect of ill-advised government policies. Beyond any question, at the present time the factor limiting industrial production more than any other is the continued operation of the OPA.

Iron and steel output fell sharply during the second six months of 1945, and was further reduced by the steel strike in 1946. By the second quarter of this year steel production should be up to double the 1939 level.

War expenditures have been dropping since May of 1945, but the last figure on our chart is still more than half of the peak. The war has now been over for six months and we should naturally expect that war expenditures would drop rapidly. The Federal government, however, is still occupying 35 million square feet of office space, which is better than 10 per cent of all office space in the United States. This space is badly needed by private industry and is not available for reconversion. If we are to divert the great part of our building materials to satisfy the housing needs during 1946 and 1947, we should not build new office space. Rapid contraction of government bureaus would reduce government expenditures, would increase industrial production, and would also provide the space which private enterprise now needs very badly.

In spite of all reconversion problems, the number of employees in all nonagricultural establishments in the United States has dropped only 10 per cent since the peak reached in December 1943. Many persons have voluntarily withdrawn from the labor force and unemployment has been below all government predictions of three to six months ago.

Construction employment has picked up considerably from the low point reached in October 1944 and should show further gains if we are to achieve even a small percentage of our housing goals.

Government employment reached an all-time peak in May of 1945 with 6,006,000 on the government pay roll. This has declined by only 3.9 per cent. In other words, out of every 26 government employees employed during the peak period of the war, 25 are still being paid by the taxpayers. This is an increase of 45 per cent above the number employed at the time the war started in Europe and a far larger percentage over the pre-New Deal level.

There are more persons employed on transportation and public utilities today than there have been at any time in the past. Employment in these lines should be expected to continue to grow during the next few years.

Shipbuilding employment is dropping very rapidly as it should, as we have built enough ships during the war period to over-supply the world for a good many years.

Wages of industrial, clerical, agricultural and other workers are running about 68 per cent above the 1926 level. This is a much larger percentage increase than the percentage increase in the cost of living as shown by the Bureau of Labor Statistics index. That index, however, does not completely reflect the deterioration in quality and is also affected by the freezing of rents, as rents form a large part of the cost of living.

Department store sales hit their highest peak in November 1945 and are continuing at a very high level. Apparently persons with a backlog of war savings are not greatly worried over reconversion and are, on the average, buying at a rapid rate.

A comparison of charts on lumber prices and on lumber production is quite interesting. The OPA is very proud of the fact that it has held down the cost of new building, but the charts give evidence that at a time when unparalleled production was necessary and with only two and a half months' supply of lumber in inventory in the United States, lumber production has been dropping rapidly. The reduced production at a time when lumber is one of the bottlenecks in new construction is more highly inflationary than could be any relaxation of OPA controls. The same statement could probably be made on general prices and, certainly, on building material prices.

The chart showing new residential building indicates that the bottom was passed some time ago and that new building is now showing some increase. In view of the present housing shortage this line will rise rapidly, if not hampered too greatly by government restrictions.

The charts on check transactions, industrial stock prices and real estate activity all reflect the inflationary monetary situation. Because of the multiplication of dollars and their lowered value, all capital assets are being revalued by public opinion and this is causing increased sales.

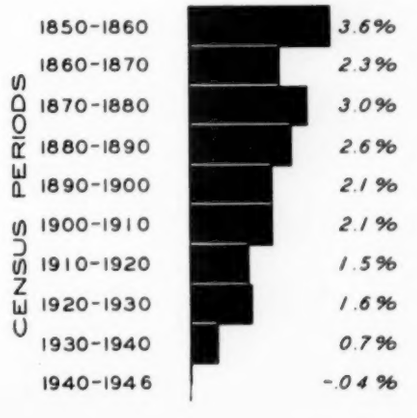
POPULATION BY STATES, JULY 1, 1945

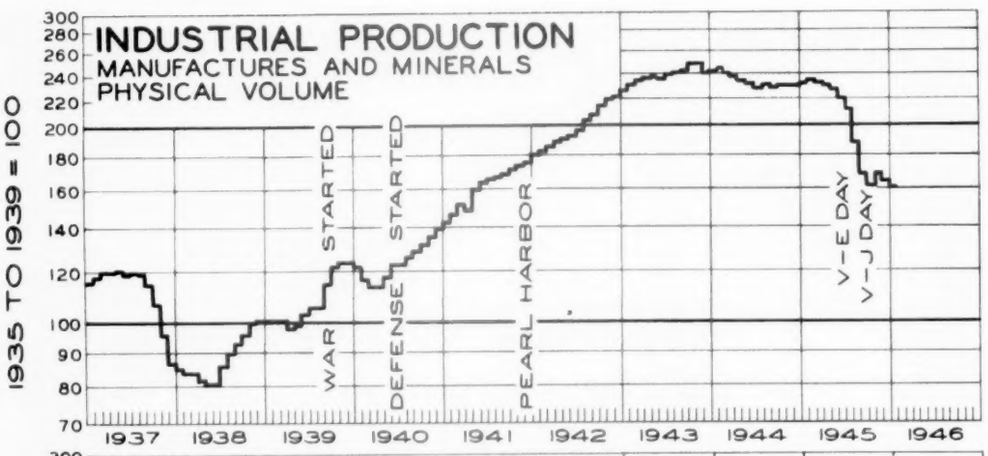
THE Bureau of the Census has just released estimates of population by States as of July 1, 1945. These figures show total population, which includes members of the armed forces in Continental United States distributed by State of station, but excludes armed forces overseas.

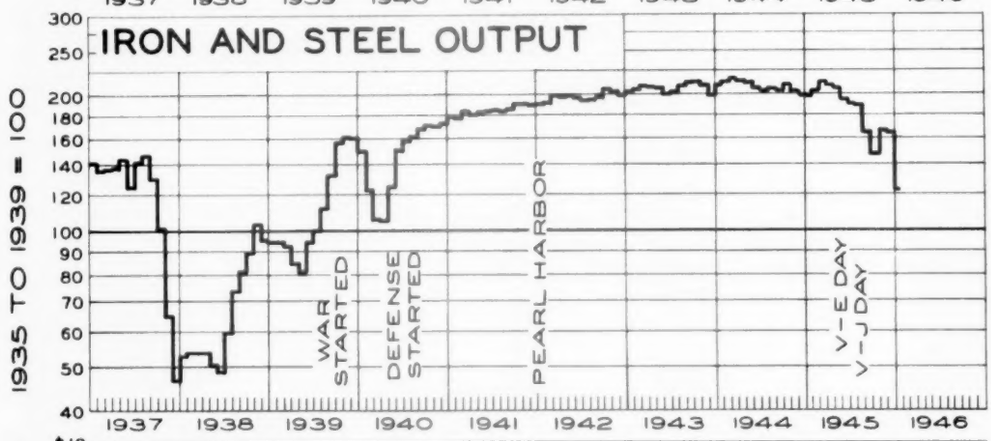
In studying these figures it should be remembered that on July 1, 1945, a majority of the military installations were located in southern and western States and this fact has helped to contribute to population gains shown by those States. If civilian population only were considered, only the West had an increase in civilian population between 1940 and 1945, and most of this increase was in California, Washington, Oregon and Arizona. When demobilization is completed, the picture will change radically, both for the total population and for the civilian population. Although in all States the population changes that occurred during the war period were not directly associated with the war, both the volume and the pattern of population growth and redistribution were in large measure a result of our participation in the war.

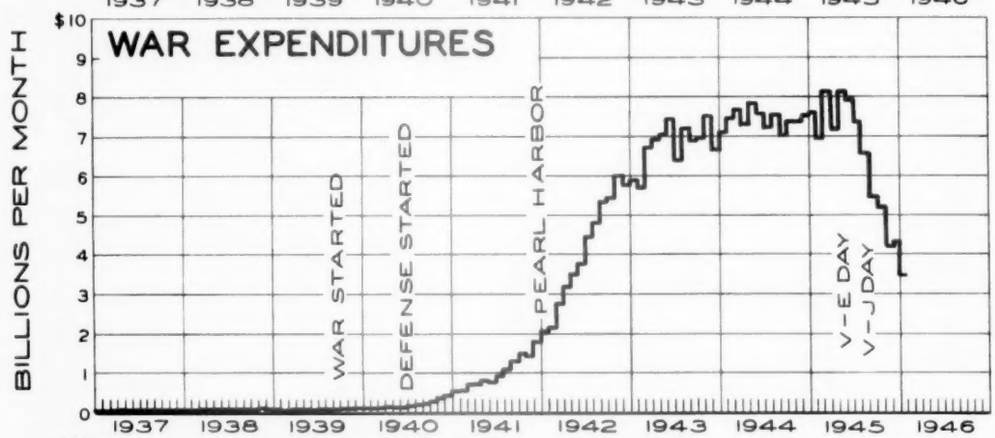
Nineteen States, including the District of Columbia, 6 in the West, 5 in the South and 4 in each of the other regions, together gained about 4,500,000 through civilian migration. The remaining 30 States lost about 3,900,000.

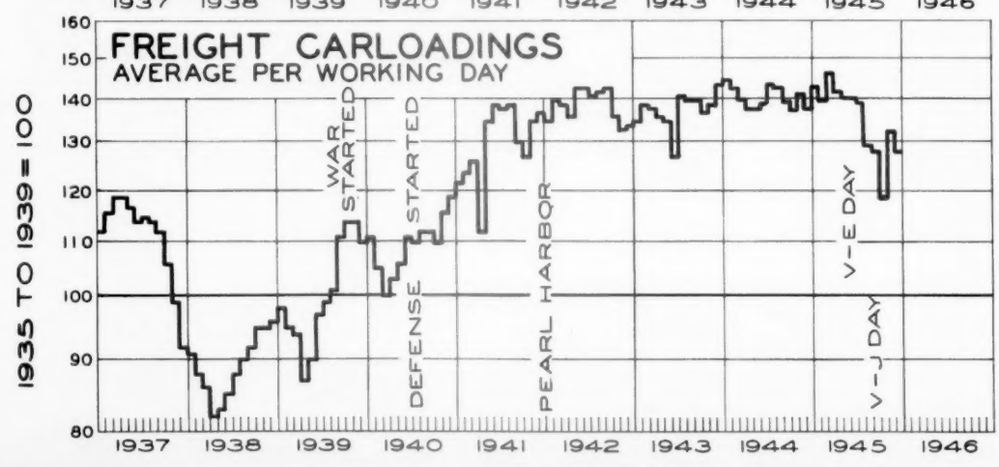
TYPICAL AVERAGE ANNUAL RATE OF GROWTH OF STATES 1850–1946

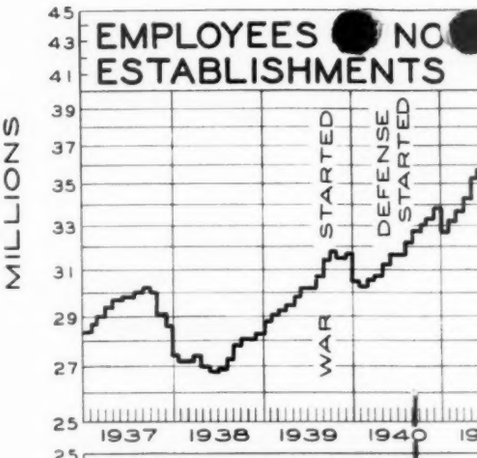


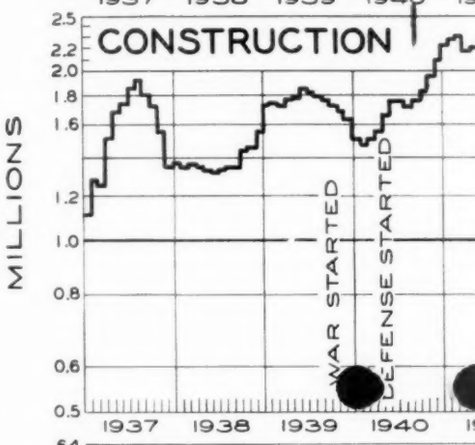

INDUSTRIAL PRODUCTION
MANUFACTURES AND MINERALS
PHYSICAL VOLUME
1935 TO 1939 = 100
WAR STARTED
DEFENSE STARTED
PEARL HARBOR
V-E DAY
V-J DAY
1937 1938 1939 1940 1941 1942 1943 1944 1945 1946


IRON AND STEEL OUTPUT
1935 TO 1939 = 100
WAR STARTED
DEFENSE STARTED
PEARL HARBOR
V-E DAY
V-J DAY
1937 1938 1939 1940 1941 1942 1943 1944 1945 1946

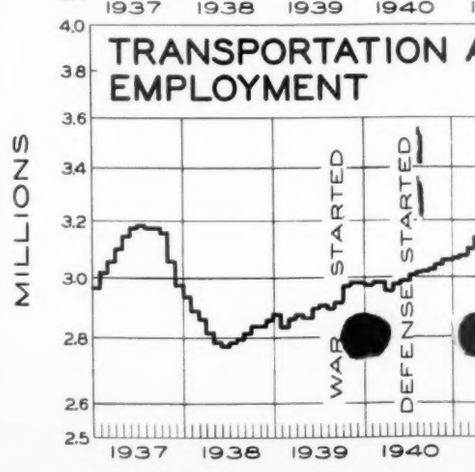

WAR EXPENDITURES
BILLIONS PER MONTH
WAR STARTED
DEFENSE STARTED
PEARL HARBOR
V-E DAY
V-J DAY
1937 1938 1939 1940 1941 1942 1943 1944 1945 1946


FREIGHT CARLOADINGS
AVERAGE PER WORKING DAY
1935 TO 1939 = 100
WAR STARTED
DEFENSE STARTED
PEARL HARBOR
V-E DAY
V-J DAY
1937 1938 1939 1940 1941 1942 1943 1944 1945 1946

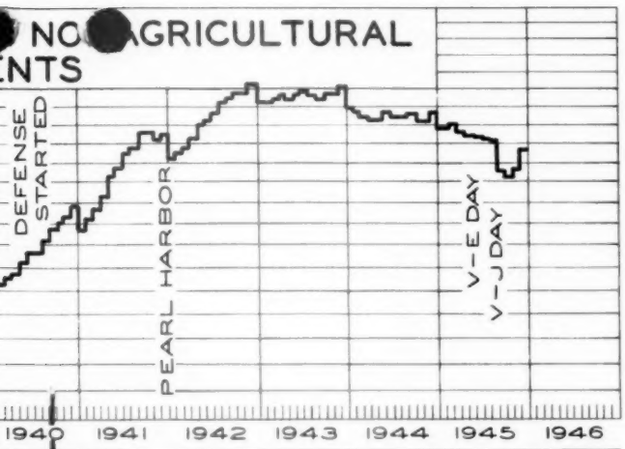

EMPLOYEES
ESTABLISHMENTS
MILLIONS
WAR STARTED
DEFENSE STARTED
1937 1938 1939 1940

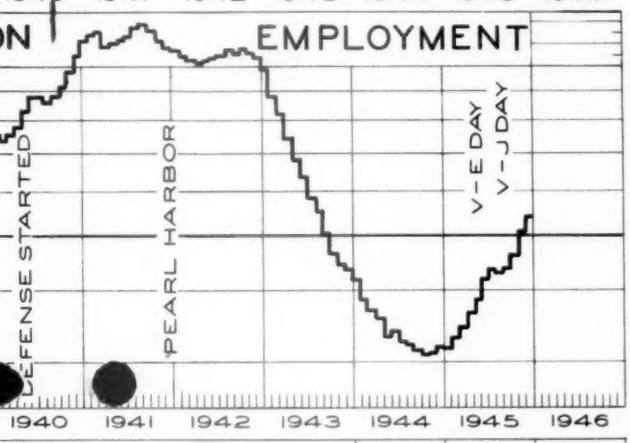

CONSTRUCTION
MILLIONS
WAR STARTED
DEFENSE STARTED
1937 1938 1939 1940

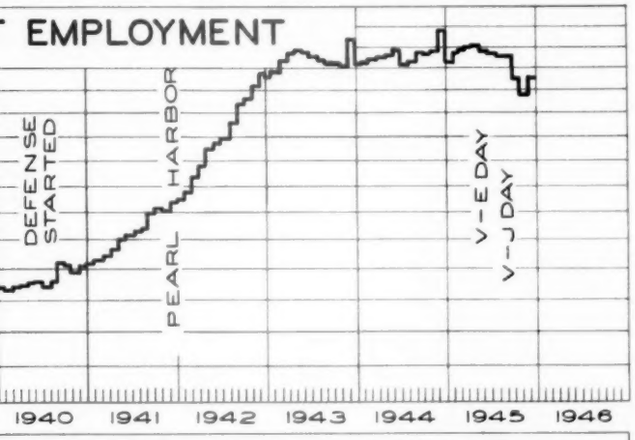

GOVERNMENT EMPL
MILLIONS
WAR STARTED
DEFENSE STARTED
1937 1938 1939 1940

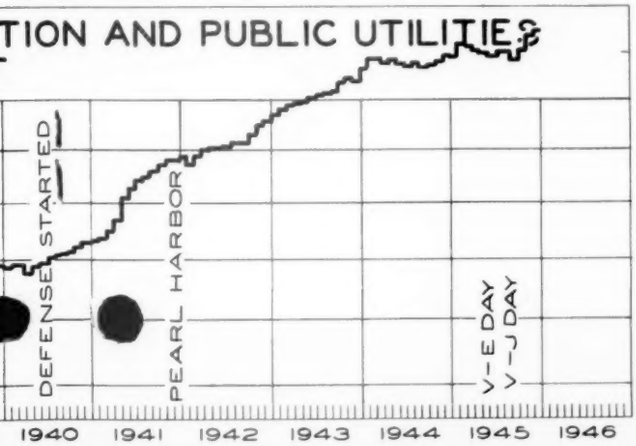

TRANSPORTATION
EMPLOYMENT
MILLIONS
WAR STARTED
DEFENSE STARTED
1937 1938 1939 1940

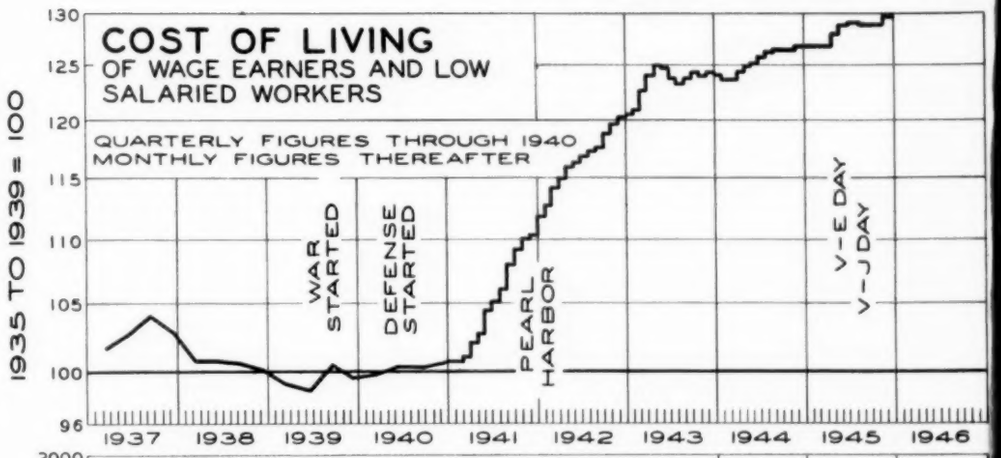
PRINCIPAL BAROMETERS

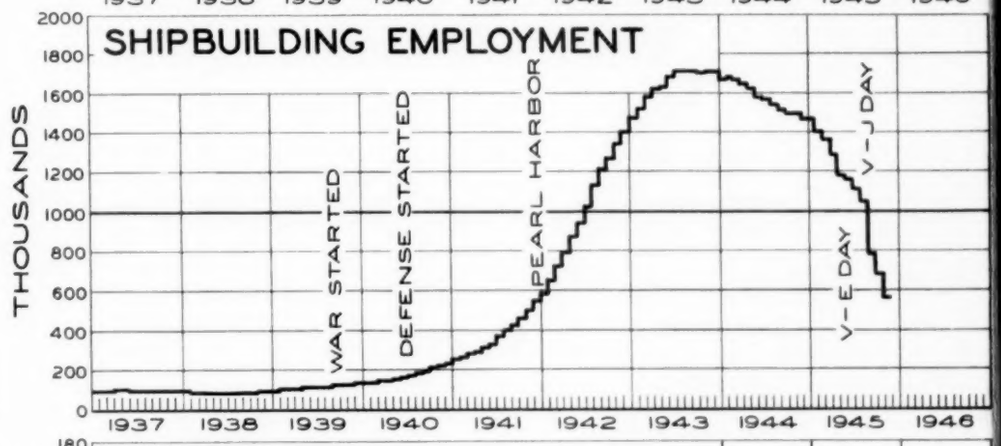


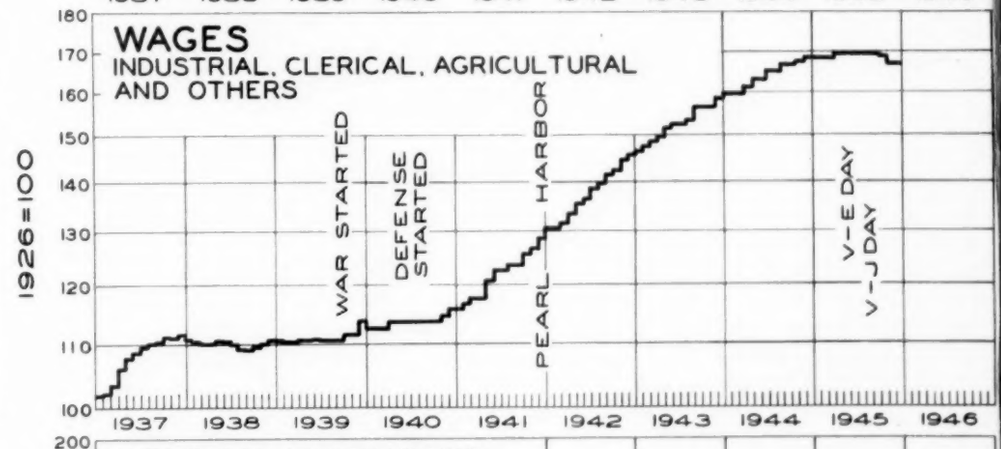


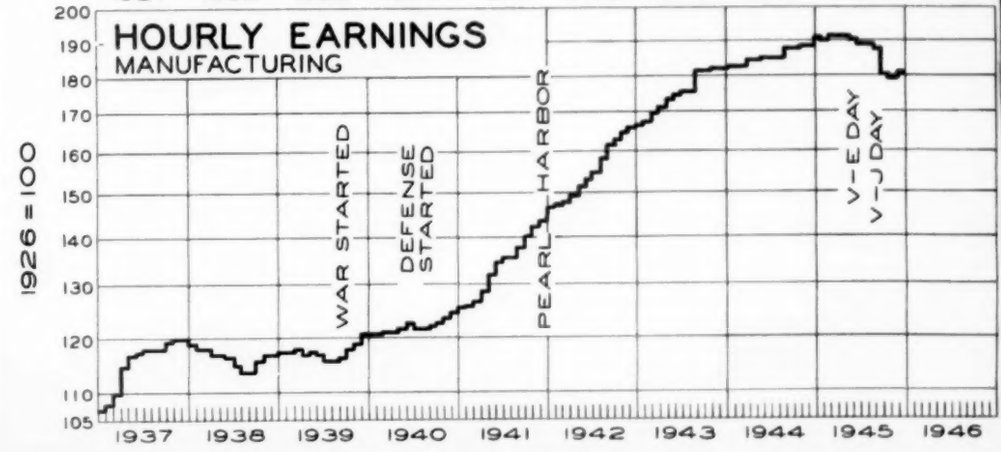












OF AMERICAN BUSINESS

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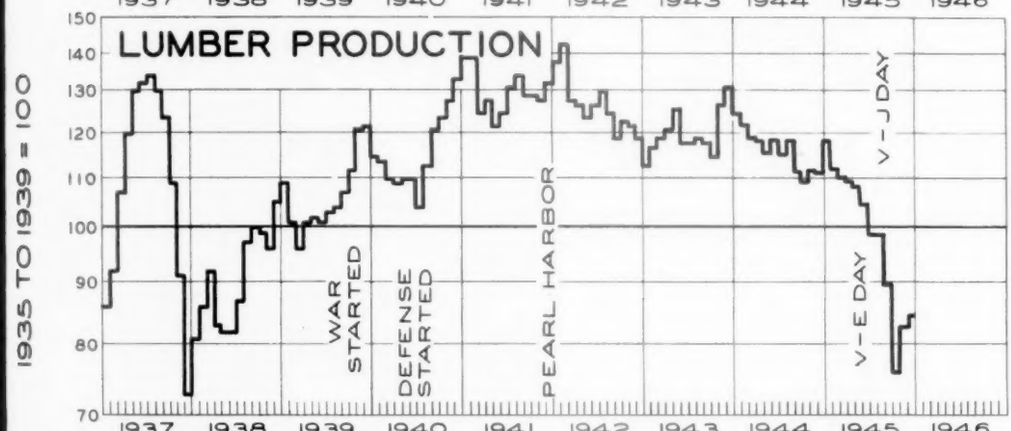
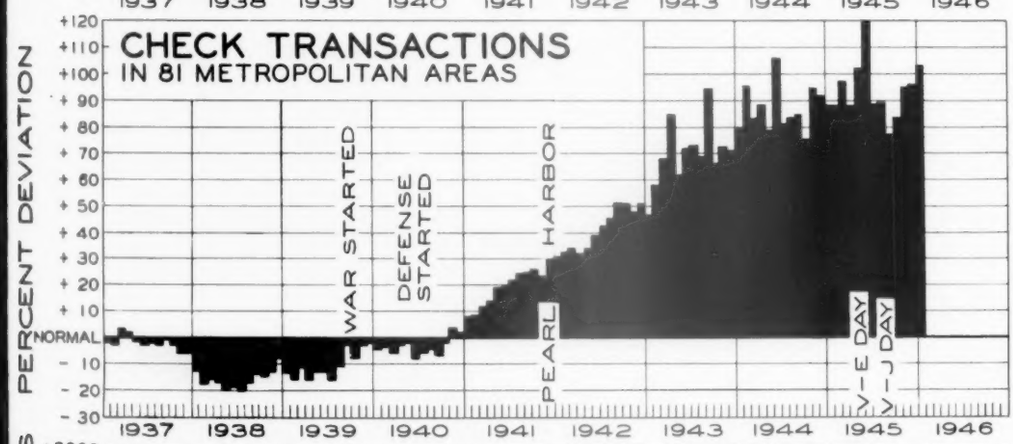
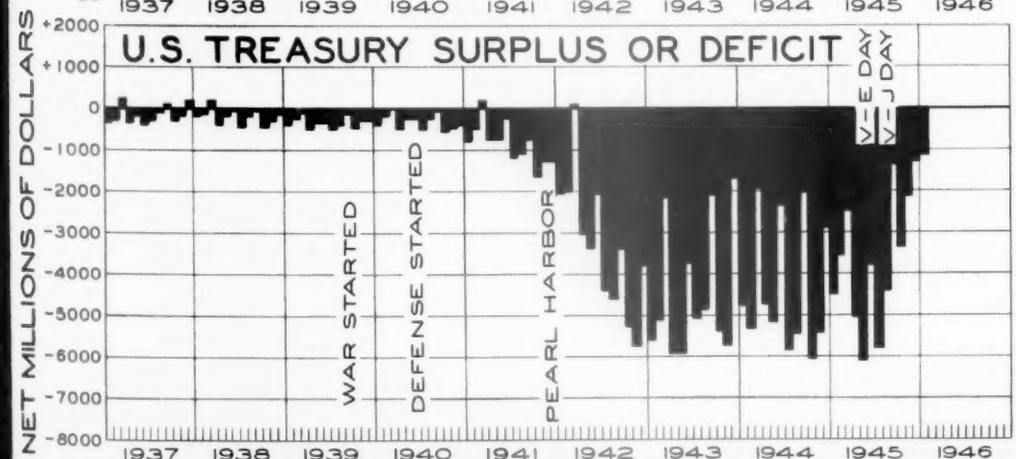
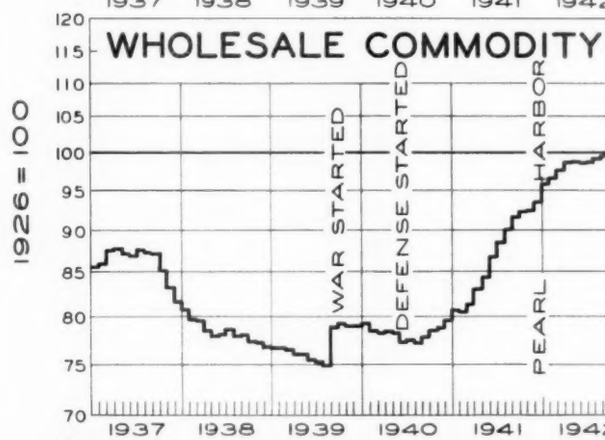
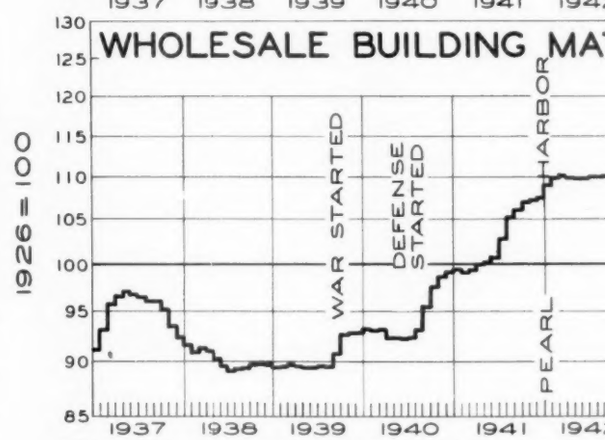
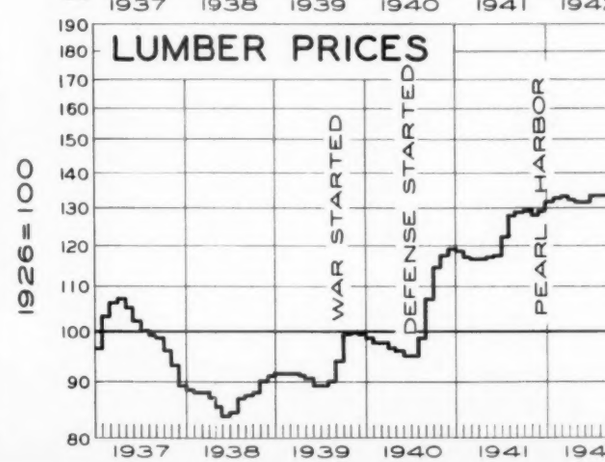


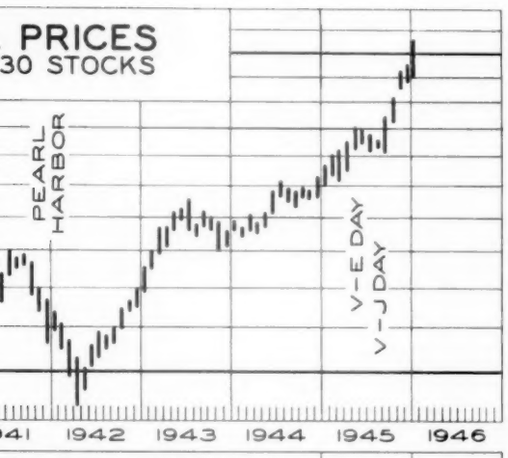


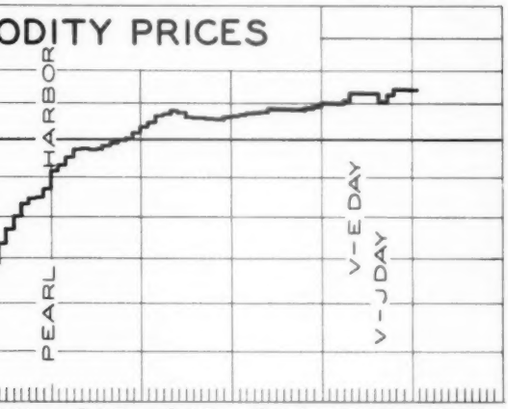


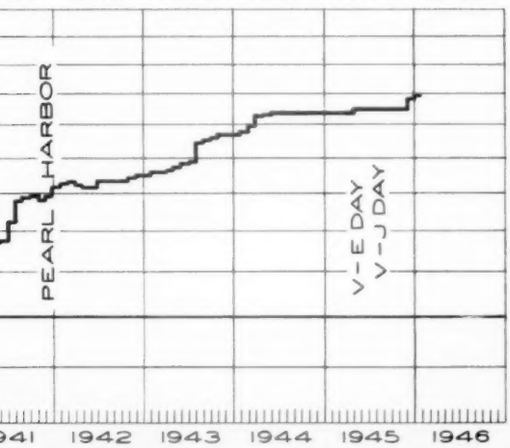










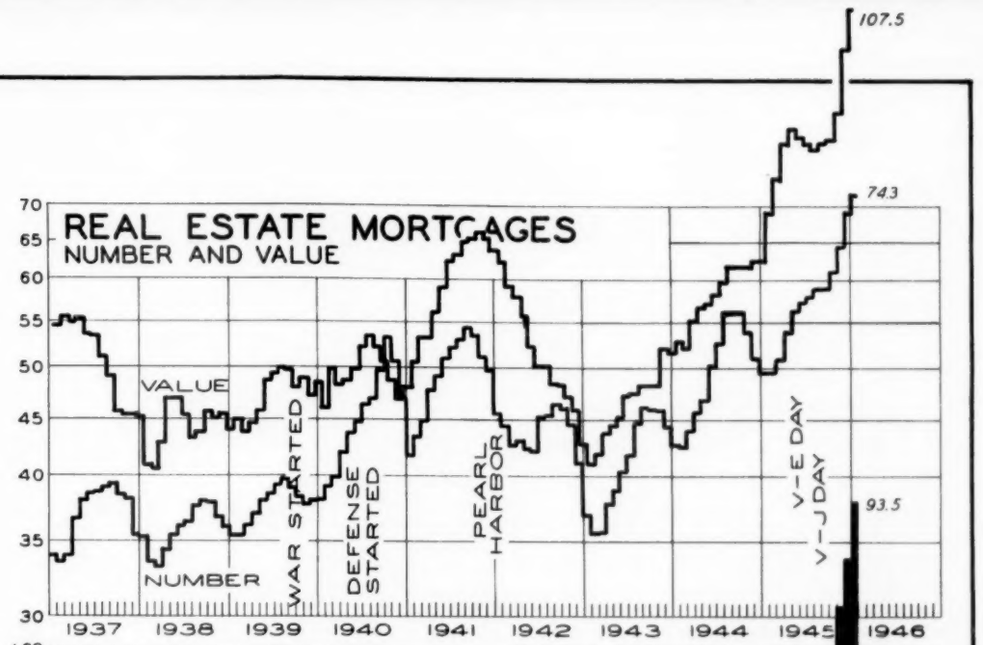


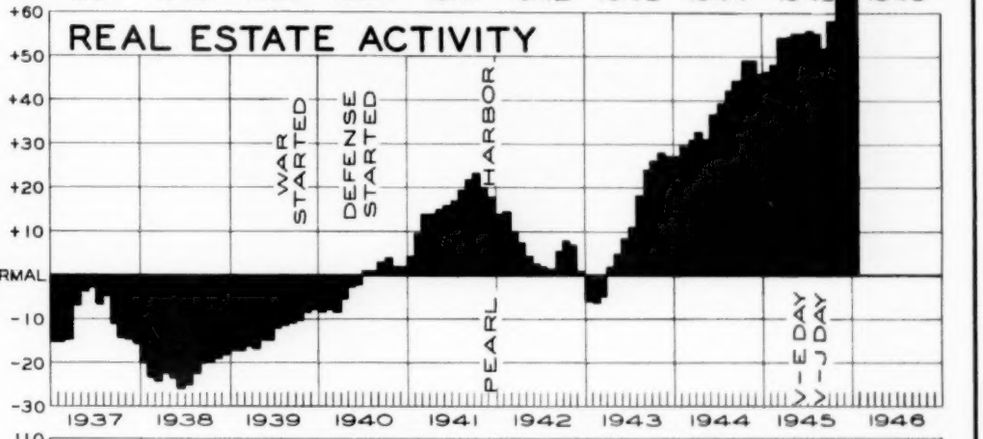
1926 = 100

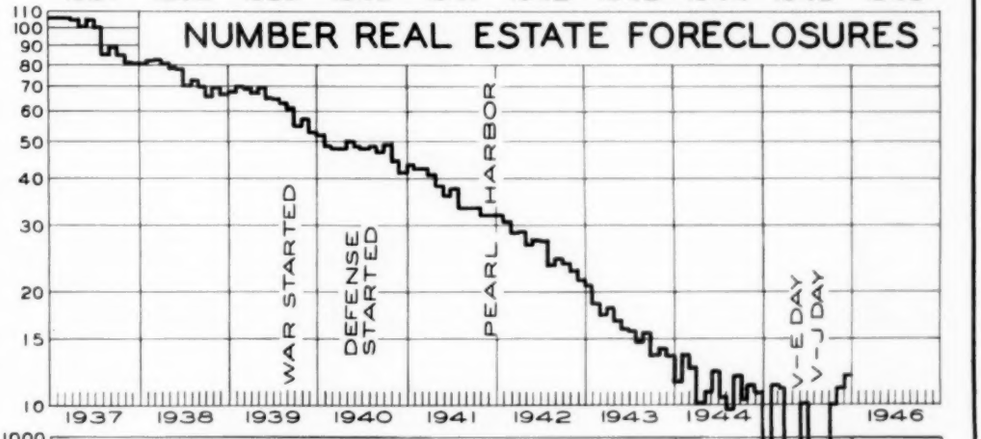
PERCENT DEVIATION

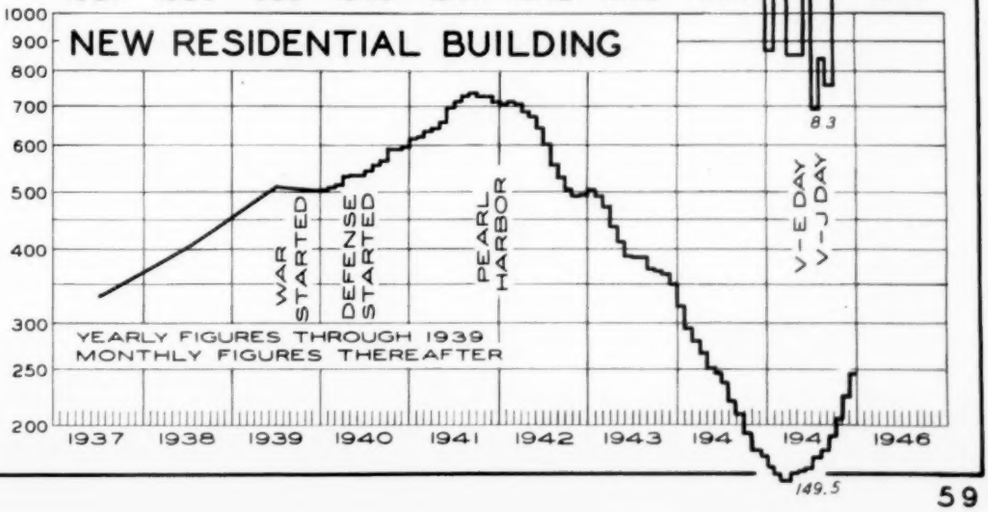
1935 TO 1939 = 100

THOUSAND UNITS PER YEAR





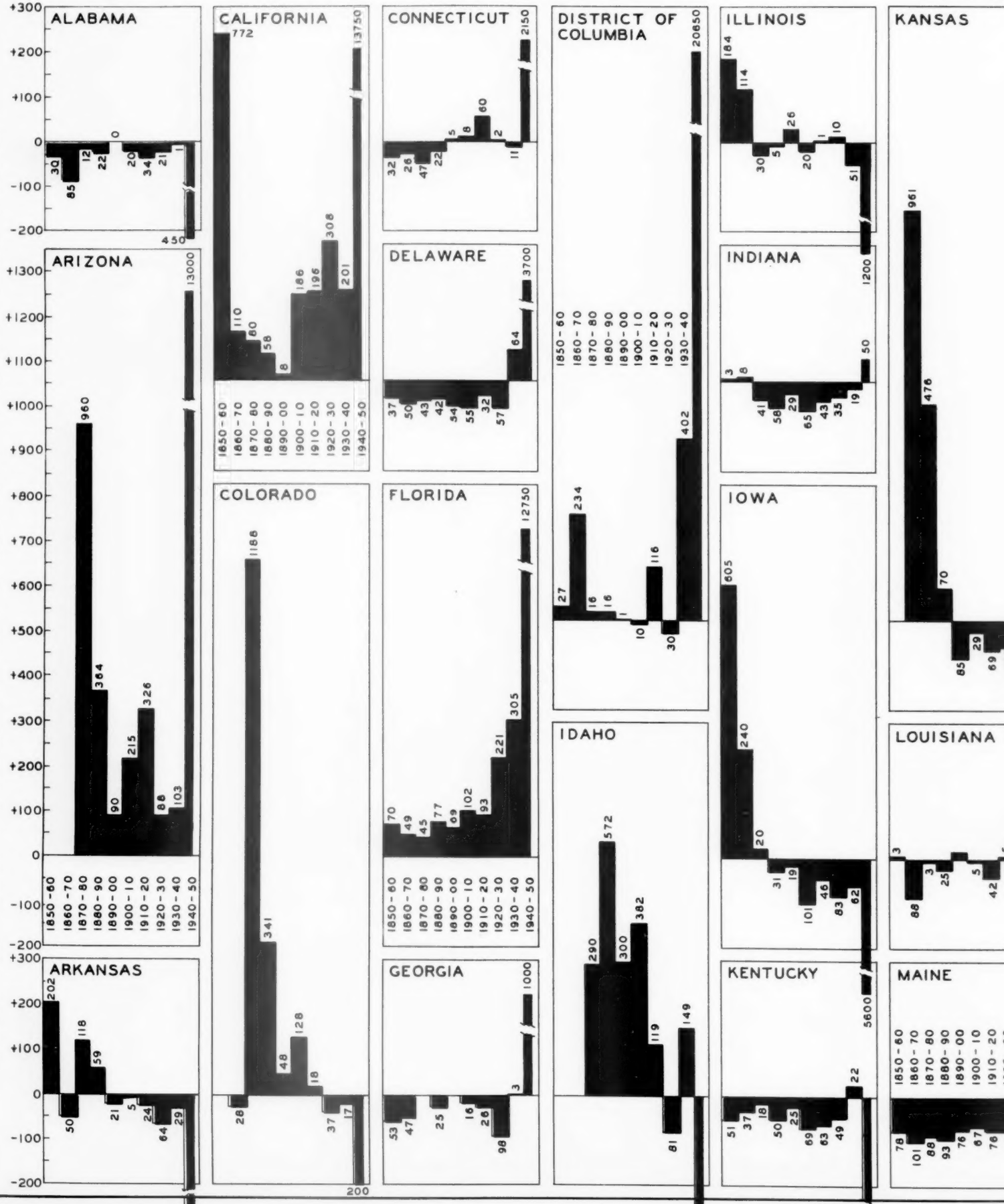




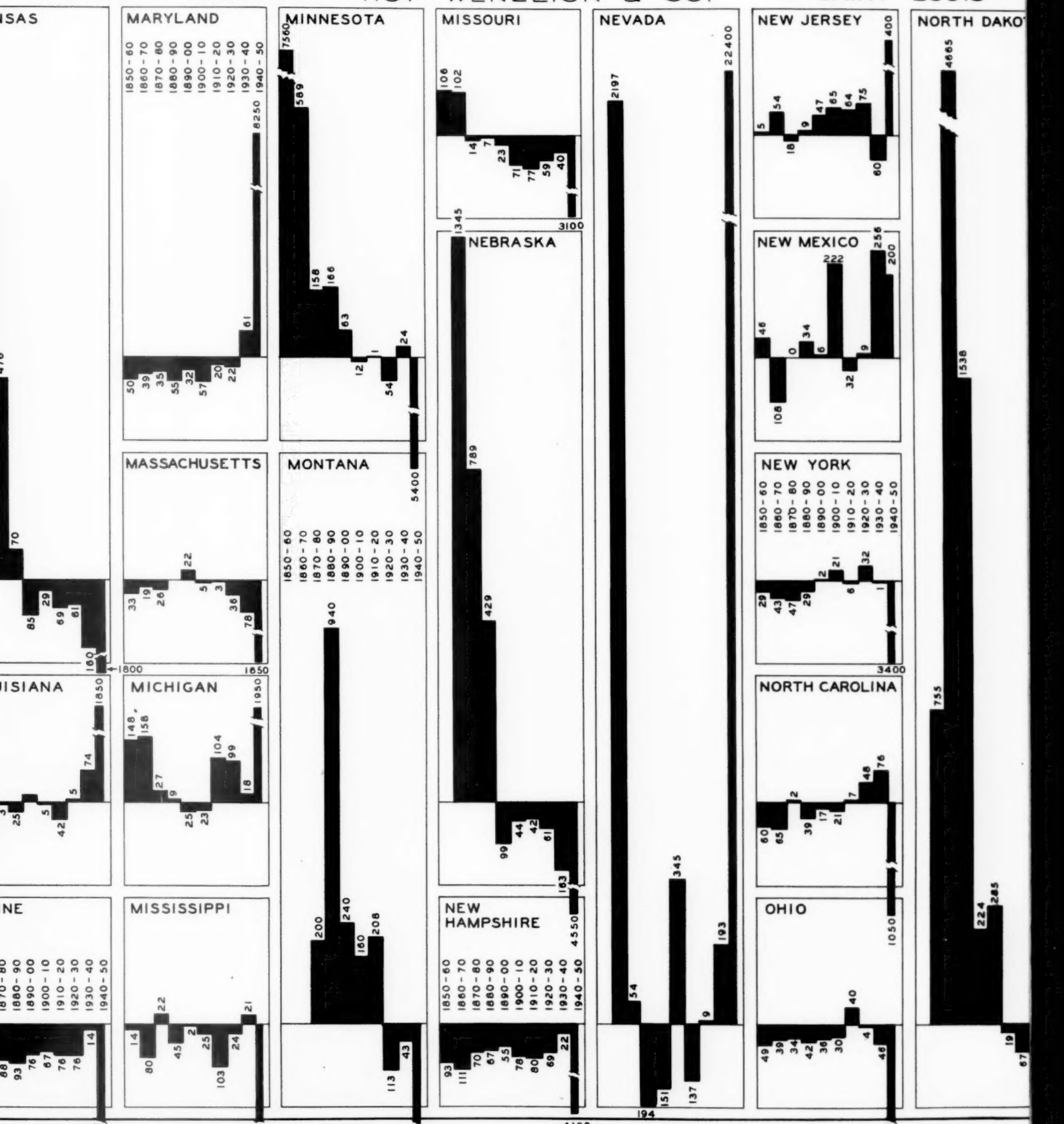
RATE OF POPULATION GROWTH OF

COR

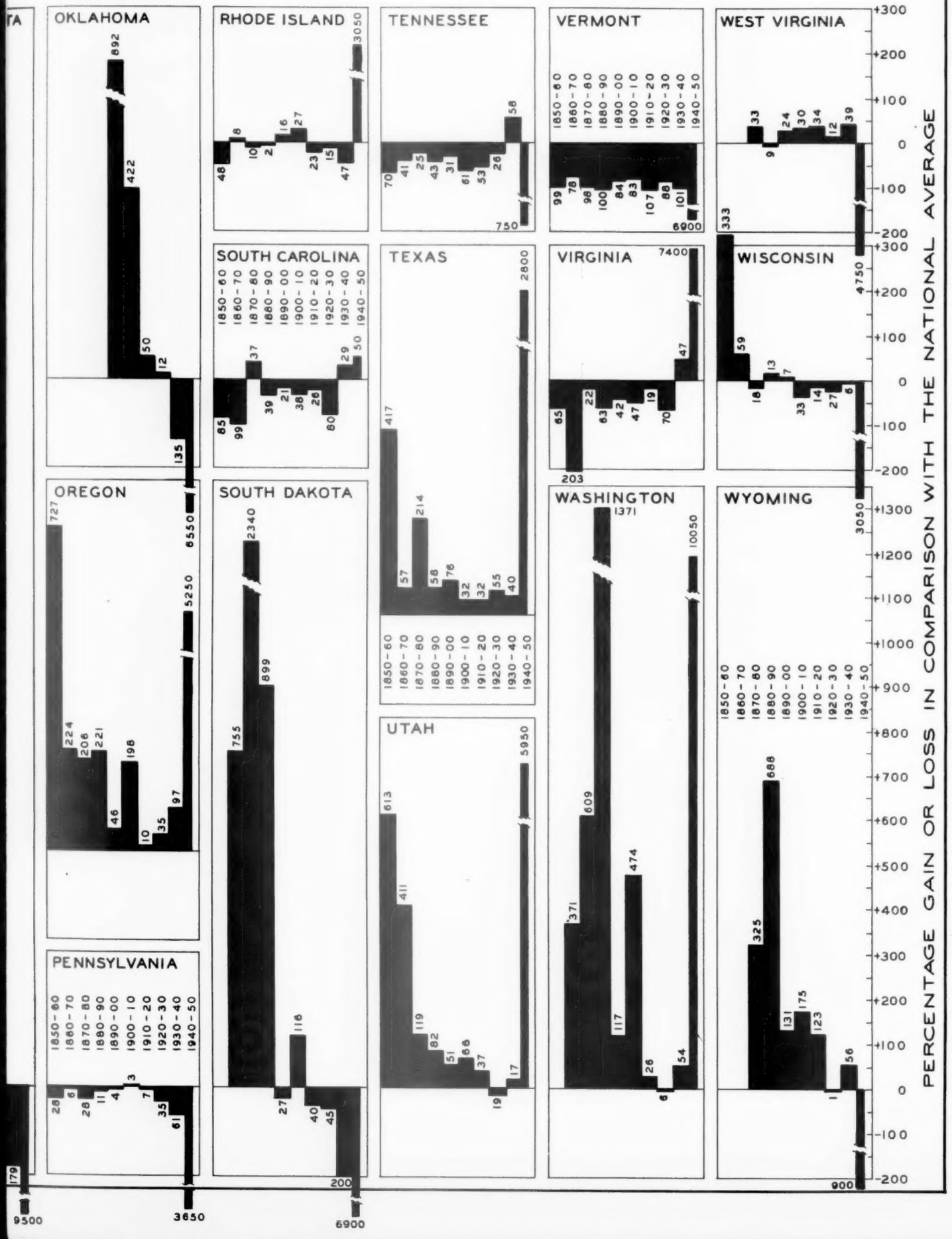
PERCENTAGE GAIN OR LOSS IN COMPARISON WITH THE NATIONAL AVERAGE



OF STATES AS A PERCENTAGE ABOVE OR BELO



OW TYPICAL GROWTH 1850 – 1945



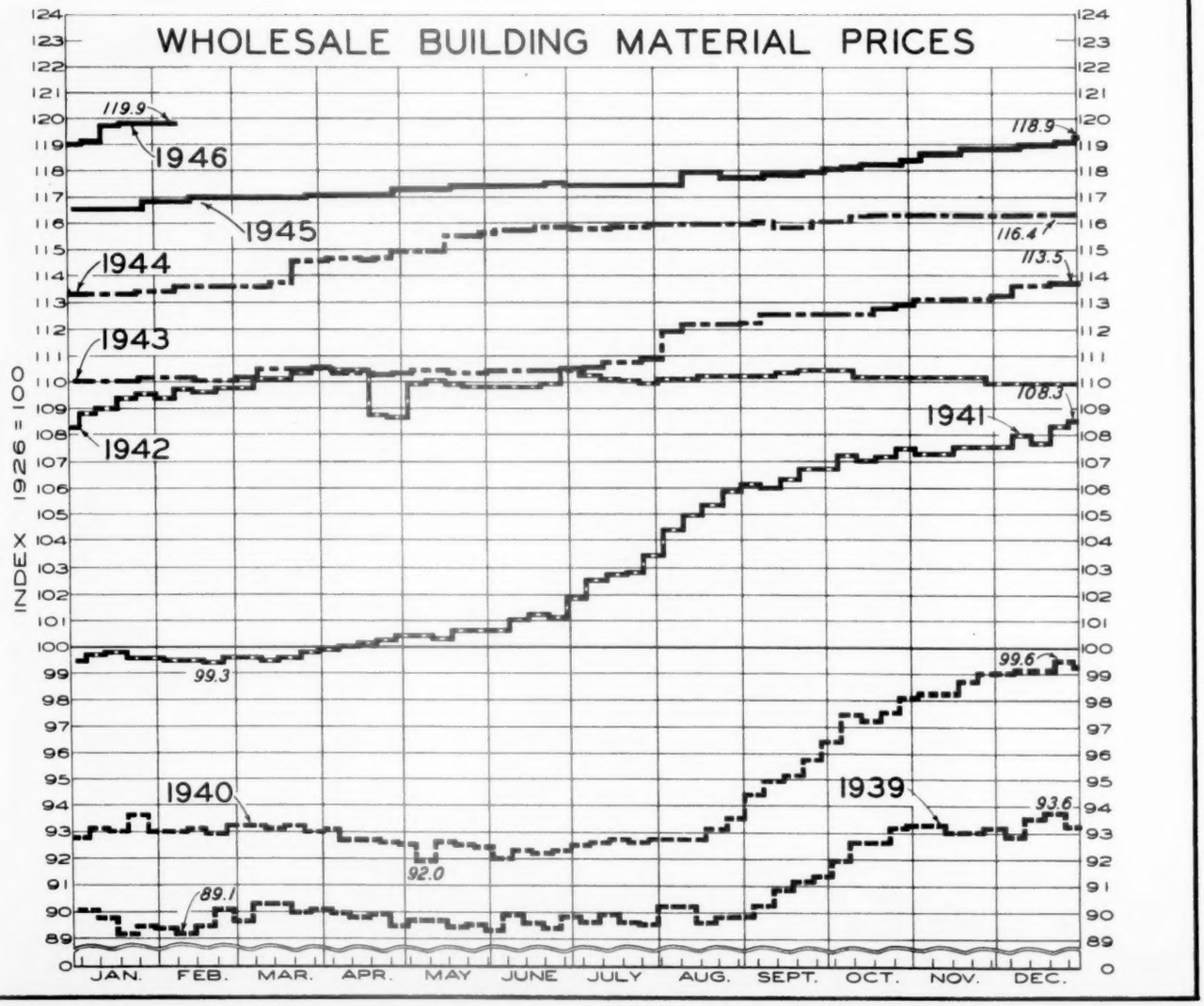
ESTIMATED POPULATION OF THE UNITED STATES EXCLUDING ARMED FORCES OVERSEAS, BY STATES, JULY 1, 1945, AND APRIL 1, 1940

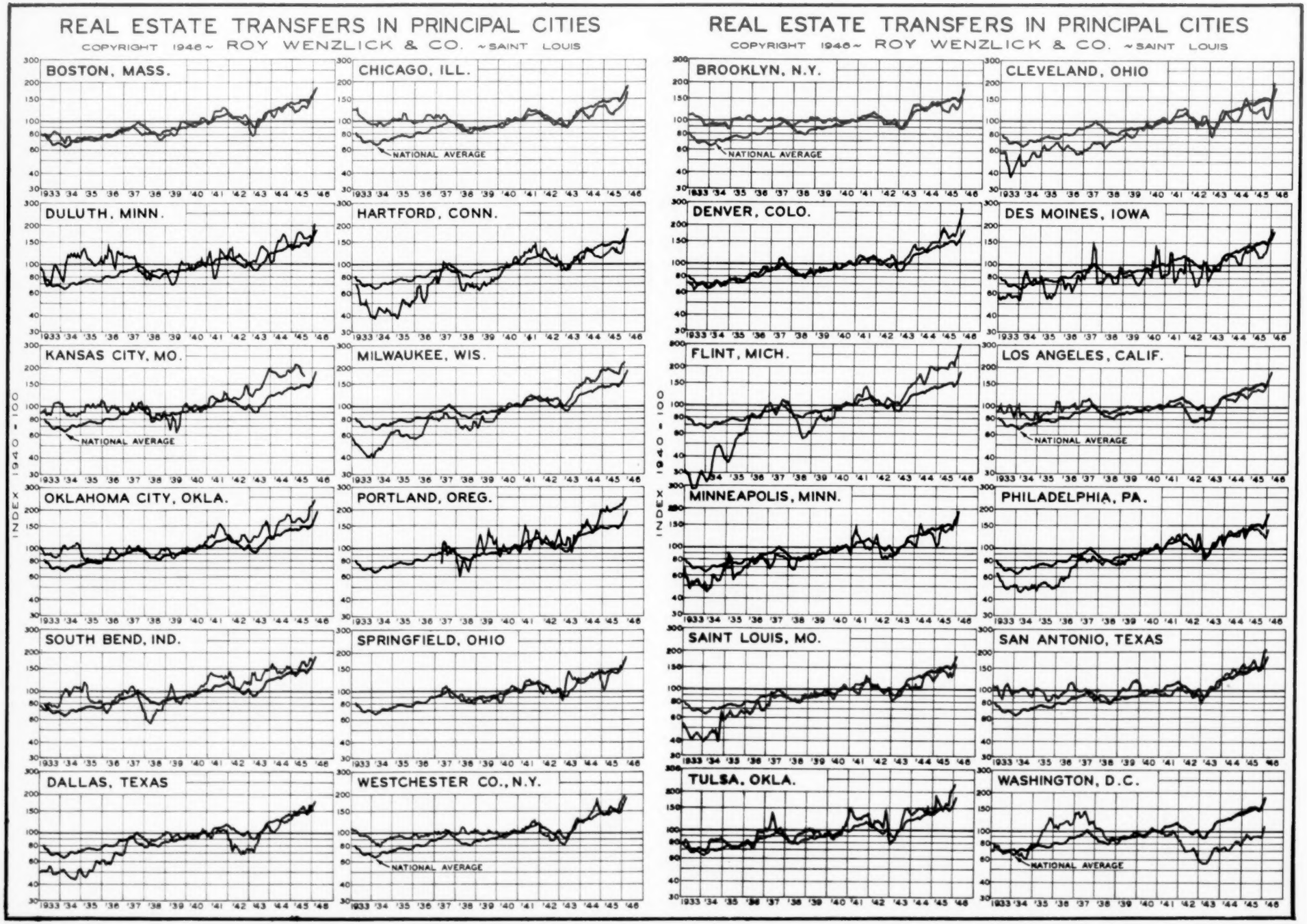
State	July 1, 1945	April 1, 1940	Increase or decrease between April 1, 1940, and July 1, 1945	
			Number	Percent
UNITED STATES	131,975,774	131,669,275	+306,499	+0.2
Alabama	2,812,301	2,832,961	-20,660	-0.7
Arizona	630,298	499,261	+131,037	+26.2
Arkansas	1,779,817	1,949,387	-169,570	-8.7
California	8,822,688	6,907,387	+1,915,301	+27.7
Colorado	1,120,595	1,123,296	-2,701	-0.2
Connecticut	1,786,300	1,709,242	+77,058	+4.5
Delaware	286,832	266,505	+20,327	+7.6
District of Columbia	938,458	663,091	+275,367	+41.5
Florida	2,385,917	1,897,414	+488,503	+25.7
Georgia	3,191,766	3,123,723	+68,043	+2.2
Idaho	500,109	524,873	-24,764	-4.7
Illinois	7,721,099	7,897,241	-176,142	-2.2
Indiana	3,437,745	3,427,796	+9,949	+0.3
Iowa	2,259,526	2,538,268	-278,742	-11.0
Kansas	1,740,379	1,801,028	-60,649	-3.4
Kentucky	2,578,179	2,845,627	-267,448	-9.4
Louisiana	2,456,057	2,363,880	+92,177	+3.9
Maine	785,913	847,226	-61,313	-7.2
Maryland	2,125,419	1,821,244	+304,175	+16.7
Massachusetts	4,183,179	4,316,721	-133,542	-3.1
Michigan	5,471,774	5,256,106	+215,668	+4.1
Minnesota	2,497,485	2,792,300	-294,815	-10.6
Mississippi	2,080,377	2,183,796	-103,419	-4.7
Missouri	3,556,693	3,784,664	-227,971	-6.0
Montana	457,624	559,456	-101,832	-18.2
Nebraska	1,198,492	1,315,834	-117,342	-8.9
Nevada	159,804	110,247	+49,557	+45.0
New Hampshire	452,174	491,524	-39,350	-8.0
New Jersey	4,200,941	4,160,165	+40,776	+1.0
New Mexico	535,220	531,818	+3,402	+0.6
New York	12,584,913	13,479,142	-894,229	-6.6
North Carolina	3,504,626	3,571,623	-66,997	-1.9
North Dakota	520,935	641,935	-121,000	-18.8
Ohio	6,873,448	6,907,612	-34,164	-0.5
Oklahoma	2,034,460	2,336,434	-301,974	-12.9
Oregon	1,206,322	1,089,684	+116,638	+10.7
Pennsylvania	9,193,957	9,900,180	-706,223	-7.1
Rhode Island	758,222	713,346	+44,876	+6.3
South Carolina	1,905,597	1,899,804	+5,793	+0.3
South Dakota	555,347	642,961	-87,614	-13.6
Tennessee	2,878,777	2,915,841	-37,064	-1.3
Texas	6,786,740	6,414,824	+371,916	+5.8
Utah	616,989	550,310	+66,679	+12.1
Vermont	310,352	359,231	-48,879	-13.6
Virginia	3,079,706	2,677,773	+401,933	+15.0
Washington	2,088,574	1,736,191	+352,383	+20.3
West Virginia	1,724,677	1,901,974	-177,297	-9.3
Wisconsin	2,952,205	3,137,587	-185,382	-5.9
Wyoming	246,766	250,742	-3,976	-1.6

REAL ESTATE TAX

THE tables on pages 52 and 53 show the average real estate tax load per family in comparison with the median rental value of homes in each of 94 cities. The tax load per family is the same as shown in the Real Estate Tax Bulletin published in June 1945. The average (median) rent is that reported by the Federal Census in 1940, and includes the contract rent of rented units and the estimated rental value of owned units. The rent is expressed on an annual basis. The third column of figures on the table shows the percentage which the average real estate tax load forms of the average rent and the fourth column shows the ranking of the 94 cities from the standpoint of low taxes.

This table shows in a rough fashion not only the average real estate tax load per family but the ability of the families to pay. It does not show the percentage which the average family pays in real estate taxes on its home. It attempts to compensate to some extent for the fact that certain cities with very low tax rates also have very poor living standards. Since rents were frozen shortly after the 1940 Census, the rental figure should be relatively representative in most cities of conditions as they exist today.




REAL ESTATE TRANSFERS IN PRINCIPAL CITIES
COPYRIGHT 1946~ ROY WENZLICK & CO. ~SAINT LOUIS
INDEX 1940 - 100
BOSTON, MASS.
CHICAGO, ILL.
NATIONAL AVERAGE
DULUTH, MINN.
HARTFORD, CONN.
KANSAS CITY, MO.
NATIONAL AVERAGE
MILWAUKEE, WIS.
OKLAHOMA CITY, OKLA.
PORTLAND, OREG.
SOUTH BEND, IND.
SPRINGFIELD, OHIO
DALLAS, TEXAS
WESTCHESTER CO., N.Y.
NATIONAL AVERAGE
1933 '34 '35 '36 '37 '38 '39 '40 '41 '42 '43 '44 '45 '46
REAL ESTATE TRANSFERS IN PRINCIPAL CITIES
COPYRIGHT 1946~ ROY WENZLICK & CO. ~SAINT LOUIS
INDEX 1940 - 100
BROOKLYN, N.Y.
NATIONAL AVERAGE
CLEVELAND, OHIO
DENVER, COLO.
DES MOINES, IOWA
FLINT, MICH.
LOS ANGELES, CALIF.
NATIONAL AVERAGE
MINNEAPOLIS, MINN.
PHILADELPHIA, PA.
SAINT LOUIS, MO.
SAN ANTONIO, TEXAS
TULSA, OKLA.
WASHINGTON, D.C.
NATIONAL AVERAGE
1933 '34 '35 '36 '37 '38 '39 '40 '41 '42 '43 '44 '45 '46

ESTIMATED NUMBER OF NEW NONFARM DWELLING UNITS

1920 ... 247,000	1925 ... 937,000	1930 ... 330,000	1935 ... 221,000
1921 ... 449,000	1926 ... 849,000	1931 ... 254,000	1936 ... 319,000
1922 ... 716,000	1927 ... 810,000	1932 ... 134,000	1937 ... 336,000
1923 ... 871,000	1928 ... 753,000	1933 ... 93,000	1938 ... 406,000
1924 ... 893,000	1929 ... 509,000	1934 ... 126,000	1939 ... 515,000

MONTHLY FIGURES

	1939	1940	1941	1942	1943	1944	1945
January	32,300	25,700	41,200	34,500	45,000	17,300	7,700
February	30,700	36,900	43,700	51,300	40,100	13,500	8,500
March	42,900	46,000	60,200	52,700	33,000	18,100	13,200
April	42,900	62,900	75,200	59,700	26,700	14,300	20,500
May	53,300	57,000	70,700	60,600	33,600	16,500	19,400
June	45,900	44,100	77,200	46,300	21,800	17,500	20,400
July	44,200	57,600	74,600	26,700	24,200	14,500	23,300
August	51,200	55,800	69,800	27,500	27,600	12,800	20,200
September	42,400	58,400	67,000	40,400	24,300	11,300	21,500
October	42,900	66,200	56,200	32,200	28,100	10,800	29,800
November	45,100	44,900	46,600	30,400	26,100	11,600	31,300
December	41,200	47,000	32,800	34,300	19,500	10,800	29,800

CUMULATIVE FIGURES

January	32,300	25,700	41,200	34,500	45,000	17,300	7,700
February	63,000	62,600	84,900	85,800	85,100	30,800	16,200
March	105,900	108,600	145,100	138,500	118,100	48,900	29,400
April	148,800	171,500	220,300	198,200	144,800	63,200	49,900
May	202,100	228,500	291,000	258,800	178,400	79,700	69,300
June	248,000	272,600	368,200	305,100	200,200	97,200	89,700
July	292,200	330,200	442,800	331,800	224,400	111,700	113,000
August	343,400	386,000	512,600	359,300	252,000	124,500	133,200
September	385,800	444,400	579,600	399,700	276,300	135,800	154,700
October	428,700	510,600	635,800	431,900	304,400	146,600	184,500
November	473,800	555,500	682,400	462,300	330,500	158,200	215,800
December	515,000	602,500	715,200	496,600	350,000	169,000	245,600

12-MONTH MOVING TOTALS

January		508,400	618,000	708,500	507,100	322,300	159,400
February		514,600	624,800	716,100	495,900	295,700	154,400
March		517,700	639,000	708,600	476,200	280,800	149,500
April		537,700	651,300	693,100	443,200	268,400	155,700
May		541,400	665,000	683,000	416,200	251,300	158,600
June		539,600	698,100	652,100	391,700	247,000	161,500
July		553,000	715,100	604,200	389,200	237,300	170,300
August		557,600	729,100	561,900	389,300	222,500	177,700
September		573,600	737,700	535,300	373,200	209,500	187,900
October		596,900	727,700	511,300	369,100	192,200	206,900
November		596,700	729,400	495,100	364,800	177,700	226,600
December	515,000	602,500	715,200	496,600	350,000	169,000	245,600

EXECUTIVE DIGEST

OF THE CURRENT REAL ESTATE ANALYST REPORTS

FEBRUARY 1946

ROY WENZLICK & CO.

Real Estate Economists, Appraisers and Counselors

VOLUME XV

Roy Wenzlick
Editor

REAL ESTATE ACTIVITY

In January real estate activity advanced again, to a point 93.5 per cent above the assumed normal. This is higher than real estate activity has ever gone over the entire length of our chart, and again brings into question our assumption, in estimating our present normal, that real estate activity gradually decreases as a country matures. This assumption in the computed normal of the past has been borne out by the actual measured figures, and continuation of the downward trend has been assumed in the drawing of our charts. However, the number of transfers during January in the principal cities of the United States without adjustment for trend was also greater than it has been at any time in the past. If these figures are corrected for the number of families but without further adjustment for trend, in January our index number would be 23.1 per cent above the 1926 level. This is 9.8 per cent above the peak of the twenties.

It is our opinion that the rapid rise in real estate transfers is the inevitable result of (1) the revaluation of all capital assets in terms of the depreciated dollar; and (2) the present housing shortage.

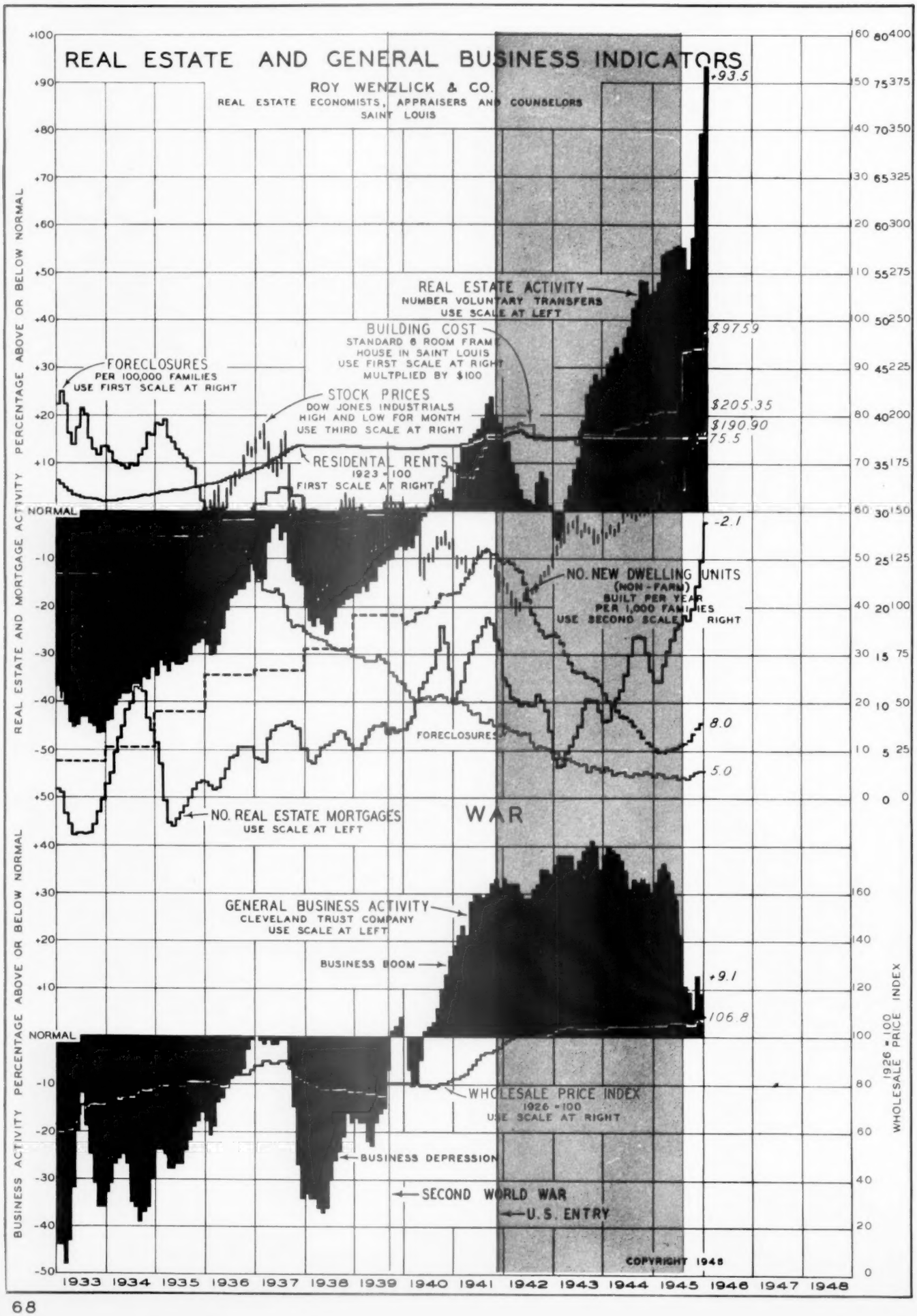
FORECLOSURES

Involuntary transfers of real estate on our long chart are now running at a rate of 5 per hundred thousand families. This is higher than the all-time low of 3.4 reached last July, but is still below the level of any period prior to 1944.

RESIDENTIAL BUILDING

Each month since last March has seen a slight increase in the rate at which residential building was being done in all nonfarm areas of the United States. Last March we were building 4.9 new family accommodations per year per thousand families. In December, the last month for which complete totals are available, this had reached a level of 8 new accommodations per year per thousand families. January and February will show still further advances in the rate and will show that the rate of increase has been accelerated.

In order to attain the goal for permanent housing set by Wilson Wyatt for new building in 1946 and 1947 it will be necessary to reach in the peak months of 1946 a rate of 31 new units per year per thousand families, and during 1947 we will probably have to pass 49 accommodations. We will not say that this goal is impossible, but it certainly looks improbable at the present time, particularly with the limitations which are being placed on the type and price of building. If new building were allowed free of all price ceilings and in


REAL ESTATE AND GENERAL BUSINESS INDICATORS
ROY WENZLICK & CO.
REAL ESTATE ECONOMISTS, APPRAISERS AND COUNSELORS
SAINT LOUIS
REAL ESTATE ACTIVITY
NUMBER VOLUNTARY TRANSFERS
USE SCALE AT LEFT
+93.5
BUILDING COST
STANDARD 6 ROOM FRAME
HOUSE IN SAINT LOUIS
USE FIRST SCALE AT RIGHT
MULTPLIED BY $100
$97.59
FORECLOSURES
PER 100,000 FAMILIES
USE FIRST SCALE AT RIGHT
STOCK PRICES
DOW JONES INDUSTRIALS
HIGH AND LOW FOR MONTH
USE THIRD SCALE AT RIGHT
$205.35
$190.90
75.5
RESIDENTAL RENTS
1923 = 100
FIRST SCALE AT RIGHT
NORMAL
-2.1
NO. NEW DWELLING UNITS
(NON-FARM)
BUILT PER YEAR
PER 1,000 FAMILIES
USE SECOND SCALE AT RIGHT
8.0
FORECLOSURES
5.0
NO. REAL ESTATE MORTGAGES
USE SCALE AT LEFT
WAR
GENERAL BUSINESS ACTIVITY
CLEVELAND TRUST COMPANY
USE SCALE AT LEFT
BUSINESS BOOM
+9.1
106.8
NORMAL
WHOLESALE PRICE INDEX
1926 = 100
USE SCALE AT RIGHT
BUSINESS DEPRESSION
SECOND WORLD WAR
U.S. ENTRY
COPYRIGHT 1948
REAL ESTATE AND MORTGAGE ACTIVITY PERCENTAGE ABOVE OR BELOW NORMAL
BUSINESS ACTIVITY PERCENTAGE ABOVE OR BELOW NORMAL
WHOLESALE PRICE INDEX 1926 = 100
1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948

BUILDING COSTS OF A STANDARD SIX ROOM FRAME RESIDENCE BUILT IN SAINT LOUIS

Costs are grouped into four classifications of material, four of labor and three of overhead. A further breakdown of these groups is given in detail below. Columns of the table are numbered, and a brief description of the items included in each is given in the paragraphs below. Paragraphs are numbered to correspond with the columns described. Building material costs are indicated by the letter M; corresponding labor items, in red by the letter L.

*No labor items are shown in Column 10, Building Hardware, as they have already been included in Column 5, Millwork.

Group A

(1) Masonry: Cement, sand, gravel, quick lime, hydrated lime, hard wall plaster, face and common brick, fire brick, flue lining.

(2) Tile Work: 4¼ x 4¼ wall tile, ceramic floor tile, cap and base.

Group B

(3) Unfinished Lumber: Columns, beams, floor and ceiling joists, interior and exterior studs, rafters, bracing, etc.

(4) Finished Lumber: Sub-flooring, sheathing, beveled siding, finished floors, asphalt shingle roofing, roofing felt, tar paper, shutters, etc.

(5) Millwork: Windows, doors, trim, kitchen cabinet, stairs.

Group C

(6) Heating: Boiler, insulating jackets, fittings, tools, pipes, connections, valves and radiation.

(7) Plumbing: Soil pipes and connections, stack, water pipe and connections, lead oakum and bathroom fixtures; hot water heater and tank to be furnished by others.

Group D

(8) Sheet Metal: Galv. iron (present) gutters, downspouts, flashing.

(9) Electrical Work: Main switch, BX cable, switch boxes, receptacles, transformer, etc. No fixtures included.

(10) Nails and Hardware: Common and wire nails, bolts, damper, ash doors, finish hardware.

(11) Painting: White lead, linseed oil, turpentine.

(12) Miscellaneous: Metal and wood laths, corner bead, insulation.

Total Material and Labor Costs

Group E

(13) Overhead and profit of subcontractors in plastering, metal work, heating, plumbing, electrical work and tile work.

(14) General contractor's profit.

(15) Missouri sales tax (now 2% on materials), old age and unemployment tax (Federal and State), liability and employees' compensation insurance, fire and tornado insurance, completion bond.

(16) Total overhead, profit and other costs.

TOTAL CONSTRUCTION COST

YEAR	GROUP A (1) M	GROUP A (1) L	GROUP A (2) M	GROUP A (2) L	GROUP B (3) M	GROUP B (3) L	GROUP B (4) M	GROUP B (4) L	GROUP B (5) M	GROUP B (5) L	GROUP C (6) M	GROUP C (6) L	GROUP C (7) M	GROUP C (7) L	GROUP D (8) M	GROUP D (8) L	GROUP D (9) M	GROUP D (9) L	GROUP D (10) M*	GROUP D (11) M	GROUP D (11) L	GROUP D (12) M	GROUP D (12) L	Total M	Total L	GROUP E (13)	GROUP E (14)	GROUP E (15)	GROUP E (16)	TOTAL
1913	$343	$388	$ 24	$13	$218	$101	$428	$134	$350	$121	$152	$136	$231	$110	$ 65	$12	$36	$49	$59	$16	$ 64	$ 51	$18	$1973	$1146	$248	$337	$132	$ 717	$3836
1914	362	388	24	13	212	101	415	134	349	121	147	136	248	110	59	12	32	49	59	16	64	50	18	1973	1146	248	337	132	717	3836
1915	360	388	24	13	189	108	373	145	329	131	152	144	249	116	68	12	38	52	64	17	69	48	19	1911	1197	257	337	135	729	3837
1916	366	396	24	13	224	108	438	145	363	131	203	144	309	116	101	12	55	52	86	22	69	59	19	2250	1205	295	375	142	812	4267
1917	456	413	25	14	258	109	500	146	396	132	244	152	359	122	108	12	59	54	110	26	69	69	19	2610	1242	325	418	152	895	4747
1918	539	421	25	15	292	118	570	158	449	143	322	152	359	124	95	14	52	54	118	30	75	73	21	2924	1295	346	457	163	966	5185
1919	624	453	25	15	519	128	1008	170	729	154	290	160	349	130	83	15	45	57	113	31	81	112	23	3928	1386	342	566	187	1095	6409
1920	742	463	28	17	607	183	1189	243	1030	220	305	184	372	150	83	21	46	66	143	36	116	132	32	4713	1695	366	677	227	1270	7678
1921	674	501	25	18	479	188	920	250	506	225	273	192	460	156	64	22	35	69	94	30	119	104	33	3664	1773	372	581	215	1168	6605
1922	609	506	25	18	362	174	703	232	571	209	258	204	433	166	64	20	35	73	79	28	111	81	31	3248	1744	370	536	205	1111	6103
1923	633	576	25	21	410	200	793	268	551	242	267	227	430	184	70	23	38	81	94	28	128	90	36	3429	1986	407	582	228	1217	6632
1924	618	703	251	108	401	246	779	328	492	296	274	277	388	224	64	28	35	100	97	35	156	87	44	3521	2510	527	656	274	1457	7488
1925	606	684	251	108	375	251	732	335	472	302	273	255	381	207	68	29	37	92	89	37	159	83	45	3404	2467	508	638	267	1413	7284
1926	666	653	251	108	379	240	732	320	432	288	264	244	381	197	69	27	37	87	86	36	152	83	43	3316	2359	499	617	254	1370	7045
1927	565	621	251	108	354	228	715	304	358	275	251	184	395	159	67	26	37	66	84	33	145	80	41	3190	2157	469	582	237	1288	6635
1928	563	541	208	97	406	184	644	244	377	220	261	184	382	151	71	21	39	66	85	31	116	74	32	3141	1856	438	544	213	1195	6192
1929	565	541	185	97	360	184	687	244	384	220	270	184	385	151	82	21	45	66	89	33	116	71	32	3156	1856	438	545	213	1196	6208
1930	474	422	185	97	340	135	655	181	312	164	251	140	341	114	71	15	39	50	72	33	87	211	24	2984	1429	380	479	175	1034	5447
1931	411	342	155	57	313	108	594	145	254	131	226	112	322	91	58	12	32	40	61	31	70	198	39	2655	1147	317	412	146	875	4677
1932	438	342	139	51	268	108	532	145	269	131	210	112	286	91	50	12	28	40	60	28	70	199	39	2507	1141	295	395	142	832	4480
1933	457	342	130	51	355	108	562	145	344	131	208	112	270	91	52	12	28	40	54	26	70	214	39	2700	1141	291	413	146	850	4691
1934	540	342	122	51	439	108	713	145	494	131	234	112	279	91	55	12	30	40	63	26	70	222	39	3217	1141	299	466	154	919	5277
1935	508	422	111	67	399	135	638	181	523	164	236	140	292	114	43	15	24	50	62	26	87	229	47	3091	1422	300	481	174	955	5468
1936	506	490	111	67	364	159	655	209	494	188	255	160	301	131	50	19	28	57	59	27	98	221	53	3071	1631	344	505	239	1088	5790
1937	503	512	111	67	395	186	742	245	578	221	247	160	326	141	54	22	29	57	64	31	104	226	53	3306	1768	363	544	310	1217	6291
1938	508	425	103	67	350	157	647	204	571	179	241	160	297	134	47	19	26	57	66	28	88	222	42	3106	1532	333	494	306	1133	5771
1939	513	525	103	77	360	159	660	211	513	190	239	160	277	133	49	19	27	57	64	29	109	192	56	3026	1696	344	505	323	1172	5894
Ja 1940	510	538	103	77	374	158	679	215	567	195	236	160	282	131	58	17	32	57	65	30	93	193	61	3129	1702	352	516	327	1195	6026
Ap 1940	510	538	103	77	371	158	651	215	566	195	236	160	285	131	63	17	35	57	65	30	93	193	61	3108	1702	352	516	327	1195	6005
Jl 1940	510	538	103	77	371	158	651	215	566	195	236	160	285	131	63	17	35	57	65	30	93	193	61	3108	1702	352	516	327	1195	6005
O 1940	510	542	145	86	494	162	763	218	628	197	254	160	294	161	63	17	31	57	66	32	93	203	75	3482	1768	385	564	351	1300	6551
Ja 1941	515	640	145	86	493	182	808	243	645	219	242	160	266	161	62	19	28	58	67	33	104	203	78	3507	1950	380	585	375	1340	6797
Ap 1941	487	639	159	86	463	182	771	243	633	219	251	180	274	149	62	19	28	63	69	33	131	202	79	3432	1990	396	581	376	1353	6775
Jl 1941	510	650	159	86	553	220	802	279	635	252	250	180	274	149	90	19	27	63	72	34	131	220	79	3626	2108	396	613	397	1406	7140
O 1941	514	678	159	86	544	226	861	303	689	274	262	200	289	187	106	29	34	72	80	35	145	227	79	3800	2279	433	650	424	1507	7586
Ja 1942	514	696	175	86	536	231	854	305	689	275	262	200	314	187	64	29	48	72	79	35	145	229	81	3799	2307	431	653	427	1511	7617
Ap 1942	520	696	175	86	547	231	876	305	715	275	273	200	317	187	64	29	50	72	79	38	145	229	81	3883	2307	433	663	429	1525	7717
Jl 1942	520	696	175	86	540	233	874	307	715	276	273	200	317	195	72	29	50	86	79	38	145	229	75	3882	2331	435	668	427	1530	7743
O 1942	520	668	162	86	558	207	884	274	715	248	273	180	317	149	56	29	50	65	79	38	130	229	75	3881	2111	419	639	403	1461	7453
Ja 1943	520	668	151	86	561	207	884	274	715	248	273	180	317	149	56	29	50	65	79	38	130	229	75	3873	2111	419	639	402	1460	7444
Ap 1943	520	668	151	86	561	207	884	274	715	248	273	180	317	149	56	29	50	65	79	38	130	229	75	3873	2111	419	639	402	1460	7444
Jl 1943	520	648	151	99	561	189	884	247	715	222	273	180	317	149	56	20	50	63	79	38	130	223	75	3867	2022	422	631	393	1446	7335
O 1943	528	648	151	99	662	189	1005	247	715	222	273	180	317	149	56	20	50	63	79	38	130	238	75	4112	2022	422	656	398	1476	7610
Ja 1944	528	648	175	99	662	189	1003	247	663	222	273	180	317	149	56	20	50	63	79	38	130	238	75	4082	2022	422	653	398	1473	7577
Ap 1944	528	648	175	99	700	189	1109	247	663	222	273	180	317	149	56	20	50	63	79	38	130	238	75	4226	2022	422	667	400	1489	7737
Jl 1944	528	648	175	99	700	189	1109	247	679	222	273	180	317	149	56	20	50	63	79	38	130	238	75	4242	2022	422	669	401	1492	7756
O 1944	537	762	175	99	700	189	1112	247	679	222	273	180	317	149	56	20	50	63	79	38	130	246	75	4262	2136	422	682	411	1515	7913
Ja 1945	537	763	175	99	700	212	1112	277	702	249	273	180	317	149	56	20	50	63	79	38	130	246	91	4285	2233	426	694	426	1546	8064
F 1945	551	763	175	99	700	212	1112	277	702	249	273	180	317	149	56	20	50	63	79	38	130	246	91	4299	2233	426	696	427	1549	8081
Mr 1945	551	763	175	99	700	212	1112	277	702	249	273	180	317	149	56	20	50	63	79	38	130	246	91	4299	2233	426	696	427	1549	8081
Ap 1945	551	763	175	99	700	212	1112	277	702	249	273	180	317	149	56	20	50	63	79	38	130	246	91	4299	2233	426	696	427	1549	8081
My 1945	551	763	175	99	700	212	1112	277	702	249	273	180	317	149	56	20	50	63	79	38	130	246	91	4299	2233	426	696	427	1549	8081
Je 1945	551	763	175	99	700	212	1112	277	702	249	273	180	320	149	56	20	50	63	79	38	130	246	91	4302	2233	426	696	427	1549	8084
Jl 1945	551	763	175	99	700	231	1112	307	702	276	273	200	320	174	56	20	50	72	79	38	145	246	95	4302	2382	438	712	455	1605	8289
Ag 1945	578	997	175	99	700	312	1112	429	702	345	273	292	320	251	56	20	50	101	79	38	197	246	120	4329	3163	510	800	549	1859	9351
S 1945	578	997	175	113	695	312	1117	429	702	345	273	292	320	251	56	20	50	101	79	38	197	246	120	4329	3177	515	802	552	1869	9375
O 1945	603	997	175	113	695	312	1117	429	702	345	273	292	320	251	56	20	50	101	79	38	197	246	120	4354	3177	515	805	553	1873	9404
N 1945	603	997	175	113	695	312	1117	429	702	345	285	292	322	251	56	20	50	101	79	38	197	246	120	4368	3177	518	806	554	1878	9423
D 1945	603	997	175	113	695	312	1117	429	702	345	285	292	322	251	56	20	50	101	79	38	197	246	120	4368	3177	518	806	554	1878	9423
Ja 1946	609	1068	175	113	695	330	1117	456	702	411	285	308	322	259	59	29	50	111	79	38	211	246	125	4377	3421	554	834	583	1961	9759
F 1946	609	1068	175	113	695	330	1117	456	702	411	285	308	322	259	59	29	50	111	79	38	211	246	125	4377	3421	554	834	583	1961	9759

any price class for veterans or nonveterans, new building could increase very rapidly.

BUILDING COSTS

The cost of building our six-room standard frame house in St. Louis in February was $9,759. This is the same as the January figure. It is an increase of 66 per cent above the cost of $5,894 at the time the war started in Europe, or an increase of 118 per cent above the cost of $4,480 on a distress market in 1932. The March figures will show a further increase as several price increases have come through after our February figure was computed.

REAL ESTATE MORTGAGES

Mortgage activity showed a large increase in January, our index rising to a point 2.1 per cent below the long-term computed normal. This is the highest level for real estate mortgages since 1929, with a strong probability that further increases will take place during the balance of 1946.

BUSINESS ACTIVITY

In the Real Estate Analyst for February, 24 indexes of business activity are charted over a period of the last nine years. It is rather interesting that practically all of the barometers which show volume of business have been dropping, while all of the financial barometers are at levels considerably above the wartime peaks. This, of course, is due to the inflation of money and credit in the United States resulting from the financing of the war by increasing the public debt. A dollar is no longer worth what it formerly was and as a result it takes more dollars to equal prewar values.

The principal factor holding back reconversion at the present time is the OPA and the wage and price policy of the President, but in spite of these it seems probable that most business barometers will turn up again this spring.

PRICE LEVEL

We believe that a higher price level is inevitable and that it will occur regardless of whether the OPA is continued in June or not. We believe that a year or two from now general prices will be higher if the OPA is continued than they will be if it is buried in June. The greatest weapon against further inflation is quantity production and this cannot be achieved as readily under OPA regulations. Actual prices will probably increase by 10 per cent during 1946.

STOCK MARKET

The tremendous drops in the stock market during the past few weeks are, of course, disquieting. They are probably primarily due to (1) the natural reaction from the rapid rises of the preceding period (the stock market generally goes in a saw-tooth fashion); (2) a dissatisfaction of business with OPA controls and with the wage and price formula of the President; and (3) discouragement over the present strike situation, with the apparent ineptitude of government in handling the problem.

Of course, no one knows how much further the market may drop before the reaction sets in, but we are still extremely bullish for the long pull. It seems to us that stocks will sell for a considerably larger amount than they brought before the beginning of the recent reaction.

STANDARD
SIX ROOM FRAME HOUSE

Plans and Specifications
used for computations of
construction costs

ROY WENZLICK & CO.
706 CHESTNUT
SAINT LOUIS 1, MO.

DESCRIPTIVE SPECIFICATIONS FOR STANDARD FRAME HOUSE

GENERAL CONDITIONS

Materials, Labor, Appliances. Unless otherwise specified herein, the contractor shall provide and pay for all materials, labor, water, tools, equipment, light and power necessary for the completion of the standard frame house as shown in the Real Estate Analyst, dated April 26, 1940. Unless otherwise specified, all materials shall be sound, new and of good quality and all work shall be done in a skillful and workman-like manner.

PREPARATION OF SITE AND EXCAVATION

The contractor shall clear the site of all trees, brush, etc., which come within the area of the proposed building. He shall carefully remove and stack on the plot the top soil for making the lawn.

Excavation shall be of sufficient area and depth to accommodate the building indicated; foundation walls shall be carefully backfilled. Any surplus material not required to grade the plot as designated by plans shall be removed from the premises. Any shortage of materials shall be furnished by the contractor.

Rock excavation is not included in this contract. The contractor will be paid an additional price per cubic foot for rock removal as specified in his bid.

Pumping of other than surface water is not included in the contract price. If spring or other sub-surface water is encountered, the contractor will be paid an additional price per day for keeping the excavation free at the price quoted in his bid or agreed upon between the contractor and the owner.

CONCRETE FOOTINGS AND FOUNDATIONS

Footings and foundation walls shall be installed to dimensions indicated on the plans. The mixture shall be one (1) part Portland Cement, two (2) parts clean sharp sand, five (5) parts broken stone, trap-rock, gravel or other suitable clean coarse aggregate, graded in size to pass through a 2-inch screen, adequately mixed with a sufficient amount of clean water in a mechanical batch mixer, placed in the forms within one-half hour thereafter. Substantial and tight forms shall be built on both inner and outer surface foundations of the walls. No part of excavated material shall be used as a form.

FINISHED CEMENT WORK

The under-course shall be composed of concrete as specified above, laid level to a thickness of not less than 2½ inches. A finish coat of one (1) part Portland Cement and three (3) parts clean sharp sand shall be applied to a thickness of not less than one (1) inch on top of all concrete under-courses, finished smooth and leveled under a steel trowel. Concrete fill shall be provided for tile floors in the bathroom and lavatory.

BRICKWORK AND MASONRY ITEMS

The contractor shall provide all brick work as specified on the plans, comprising a chimney, as indicated, flues lined with terracotta of proper dimensions, fireplace opening lined with fire brick, equipped with cast-iron throat, and damper and steel smoke chamber. Cast-iron ash dump and clean-out doors provided as indicated.

Common brick shall be laid in running bond with each fifth course a header course, and laid in cement mortar composed of one (1) part Portland Cement, three (3) parts clean sharp sand to which may be added 20 per cent hydrated lime. Chimney exposed above the roof shall be laid with face brick. A chimney cap shall be provided as indicated on plans. Mantel shall be of venetian red mantel brick.

LATHING, PLASTERING AND STUCCO

Exterior gable ends (see plans) shall be stuccoed with two-coat work, stucco placed on heavy-gauge galvanized-iron lath, applied securely to the sheathing and nailed every 12 inches. Both coats of stucco shall be one (1) part Portland Cement and two (2) parts clean sand. The finishing coat shall be textured as directed.

Where tiled walls occur in the bathroom and lavatory, the contractor shall cover with metal lath and cement mortar scratch.

Contractor shall provide for three-coat plastering over No. 1 yellow pine lath, secured to studs (or joints) at each intersection with blued lath nail, corner beads provided for all exterior angles. The scratch coat shall be one (1) part lime putty to two (2) parts sand, with proper proportions of hair and sand added. The brown coat shall be one (1) part lime putty to three (3) parts sand. The finished coat shall be one (1) part dry gauged plaster to two (2) parts dry hydrated lime. First grade workmanship is required in the application of each plaster coat. No cornice or other ornamental plaster work is contemplated under this contract.

INSULATION

Four inches of loose insulating material, rock wool or equal, shall cover entire area of second floor ceiling. All exterior walls shall have 4 inches of insulation material. If quilt or bat type is used, it shall be not less than 4 inches thick. Loose fill material, if used, shall be supported vertically every 2 feet and sections so formed between studs packed with sufficient material to insure installation in accordance with manufacturer's instructions. The contractor shall submit for approval both type and trade name of proposed material.

TILING

This specification provides for tiling bathroom and lavatory. Floors shall be prepared by the carpenter and mason, and walls by plaster contractor as specified above. The tile setter shall furnish and install four and a quarter by four and a quarter glazed commercial-grade wall tile with approved caps, cove bases, angles, finials, etc., color to be selected by owner. Tile installed to a height of 4'-6", 6'-6" around bath tub. Bathroom and lavatory floors shall be 1" or 2" hexagonal white ceramic tile.

The contractor shall furnish all setting materials and on completion leave the entire work properly grouted and cleaned.

ROUGH CARPENTRY AND FRAMING MATERIAL

Rough carpentry and framing material shall be the best grade provided in local practice. It may be yellow pine, white pine, fir or hemlock. All material shall be of sizes indicated, with allowance for milling.

Floor Joists	2" x 10" - spaced 16" c to c
Ceiling Joists	2" x 6" - spaced 16" c to c
Roof Rafters	2" x 6" - spaced 16" c to c
Studding in ext. walls and int. partitions	2" x 4" - spaced 16" c to c

One line of cross bridging shall be provided for each floor span exceeding 10'. Framing shall be in accordance with best practice, using box method for constructing the first floor and platform method above. The entire structure shall be braced and trussed where necessary and securely nailed as required by best practice.

UNDERFLOORING AND SHEATHING

Sheathing on roof and exterior walls and all sub-flooring shall be provided as indicated. Material shall be No. 2, dressed and not over 6" width, laid diagonally for floors and exterior walls and each intersection well secured by two 6d nails.

SIDING AND ROOFING

Exterior walls of house and garage shall be three quarter by ten inch redwood siding, cut, fitted and placed between door and window casings, with 8" exposed to the weather. Corners shall be mitered. House and garage roofs shall be asphalt strip shingle weighing not less than 260 lbs. per square.

PAPER AND FELT

Before placing siding, all exterior sheathing surface shall be covered with one course of approved waterproof building felt, weighing no less than 15 lbs. per square. This material shall be well nailed and lapped not less than 2 inches at all edges, applied in double thickness around all windows and door openings.

Before placing asphalt shingles, the entire roof sheathing shall be covered with waterproof roofing felt weighing not less than 15 lbs. per square. This roof felt shall be well nailed and lapped not less than 2 inches at all edges.

Before placing the finished flooring, all sub-flooring shall be covered with one course of building paper.

FLASHING - SHEET METAL WORK

Provide and install 16-ounce copper flashing for valleys and angles, chimney counter and step flashed. Provide gutters and downspouts (see plans) of 16 ounces copper with necessary fittings, all securely supported by approved hangers and straps.

MILLWORK - WINDOW FRAMES AND SASH

Stock window frames and sash shall be provided of the sizes shown on the plans. These shall be double-hung type as indicated. Sash shall be glazed with double-strength clear glass provided completely with brass-faced cast-iron pulleys, weights, and sash cord. The sash shall be 1-3/8" thick, check-rail type. Exterior door frames shall be 2" clear pine rabbeted to receive 1-3/4" stock doors.

MILLWORK - INTERIOR

All stock trim necessary to complete the various parts of the work indicated shall be provided. All casings, base, trim, stools and moulding shall be of yellow pine of the best quality and of approved design as carried in local stock. Exterior doors shall be clear pine 1-3/4" thick of the size shown on the plans as selected from local catalog stock. Interior doors shall be of clear pine six panel colonial design 1-3/8" thick of the size indicated on the plans selected from local catalog stock.

Finished floors shall be of clear select red oak $2\frac{1}{4}$" x 13/16 inches, to be placed over all floor areas on the first and second floors, except the bath and lavatory. Flooring shall be laid tight and even and nailed every 16 inches. All oak flooring shall be scraped or sanded and completed ready for the painters.

Two built-in kitchen dressers shall be provided as indicated on the plans. They shall be 4' x 8', built of No. 1 pine or fir as selected and carried by local catalog stock.

Basement stairs shall be finished and erected as indicated on the plans. These stairways including stringers, treads and rail shall be of No. 1 yellow pine. Stairs from first to second floor shall be furnished and erected as indicated on the plans properly supported on 2" x 6" carriages and blocking. Risers shall be of pine B or better, 7/8" x $8\frac{1}{4}$ x 3'-6"; treads of red or white oak, $11\frac{1}{2}$" x 1-1/8" x 3'-6". The rail shall be $2\frac{1}{4}$ x 2-3/8". Rail, volute and easing shall

be of birch or oak. Balusters with tapered turned necking shall be of birch or pine. The stair-railing shall be of colonial design, all as selected from local catalog stock.

PAINTING

Immediately upon completion of all exterior and interior woodwork the painter shall apply a priming coat consisting of white lead, pure linseed oil and turpentine in the proportions considered best in local practice. Upon completion of the priming coat, all nail holes and other imperfections in the work shall be stopped and filled with white lead putty. Before priming, knots and shakes shall be stopped with one coat of pure orange shellac. Second and third coats shall be mixed and applied in the color selected. Painters may mix at the job all white lead and oil paint in the proportions customary in the locality, using paste, white lead, pure linseed oil, turpentine and dryer, mixed in such proportions as to weigh not less than 15 lbs. per gallon. Painter may use the best qualities of approved ready-mixed paints. Each can must bear the formula of its contents. Materials shall be used direct from this original package and in accordance with the manufacturer's directions. (This contract does not contemplate the painting or decoration of plastered walls and ceilings.) Painter shall oil-stain oak floors in shade selected and fill with an approved paste filler. Floors shall then be finished with three coats of white shellac.

PLUMBING

This specification contemplates a complete plumbing, drainage and water-supply system for one bathroom, one kitchen and one lavatory.

Sewer Line, Vents and Drainage. House sewer line of four inches shall be carried to a point 50 feet beyond foundation walls. Septic tank, drainage field, a connection to public sewer or municipal permits as may be required by local custom are not included. Vent and drainage system shall be installed in accordance with best local practice, municipal code, or requirements of American Society of Sanitary Engineers. All joints shall be filled with oakum and poured lead and well calked. Two-inch vent and waste lines shall be of genuine galvanized wrought iron. Four-inch vitrified tile pipe shall be continued beyond the foundation walls for 50 feet and the joints securely set with cement mortar. Plumber shall excavate and backfill all pipe trenches.

Water Supply. A pipe shall be continued 50 feet beyond the foundation walls in separate trench. This shall be laid using 3/4" copper water tubing with "sweat-joint fittings." One-half inch copper tubing with sweat-joint pipe and fitting shall be installed for hot and cold water supply and connected with all plumbing fixtures and boiler. (Water closets and boiler shall be provided with cold-water supply only.) All pipe and fitting shall be installed in accordance with manufacturers' instructions.

Tests. The drainage, vent, sewer system and water supply shall be tested in the manner prescribed by local practice or by the American Society of Sanitary Engineers.

Fixtures. There shall be furnished and installed to the rough connections here provided fixtures of quality equal to those specified in the following list: (The following list covers items manufactured by the Independent Plumbing and Heating Company. Contractor is permitted to substitute any equal combination.)

60-inch Queen Sink #457
Two Knight Pedestal Lavatories 20" x 24" over all #224
Two Colonial Vitreous China toilets with white ivoryette seat #344
One 60-inch bath tub #123

Hot Water Supply. A domestic heater is not provided under these specifications. It will be provided under separate order on selection by the owner and

cost of connecting and placing the device in operation shall be included under this original plumbing contract.

Alternates. If local building codes and practice do not permit the use of copper tubing and sweat-joint fittings for water supply, the contractor shall furnish genuine wrought-iron galvanized pipe in place thereof. However, where substitution is made, pipe one size larger than specified shall be provided.

HEATING PLANT

The purpose of this specification is to describe complete installation of the 1-pipe vacuum heating plant. All pipes shall be genuine wrought iron, installed in sizes, pitch and direction as indicated on the heating plans and instructions provided by the manufacturer furnishing the vacuum system accessories.

Radiators. Radiators of the Corto type shall be provided and installed as directed by the architect. Radiation furnished by this contract consists of a total of 260 square feet. The boiler shall be of capacity and design equal to Red Flash No. 1S5, American Radiator Company #W-2204, complete including insulating jackets, standard fittings and tools.

The contractor shall guarantee the heating plant to heat the entire first and second floors of the house to 70 degrees Fahrenheit when the outside temperature is at Zero Fahrenheit and wind velocity is not in excess of 30 miles per hour, with not less than a 6-hour firing period. This should be accomplished with not more than a 2-pound gauge pressure at the boiler, or with the vacuum at the height specified by the manufacturer of the vacuum system accessories. The plant shall be tested as required and left complete.

Covering - Pipe and Boiler Jacket. The boiler shall have standard insulated jacket as regularly furnished by manufacturer, lined with not less than 1-inch thickness of asbestos sheet insulation, and 4-inch asbestos fill shall be placed on floor within jacket. All exposed supply pipes in the cellar and within building walls shall be covered with approved 2-inch air-cel asbestos covering. All exposed covering shall be banded at the joints with brass strapping.

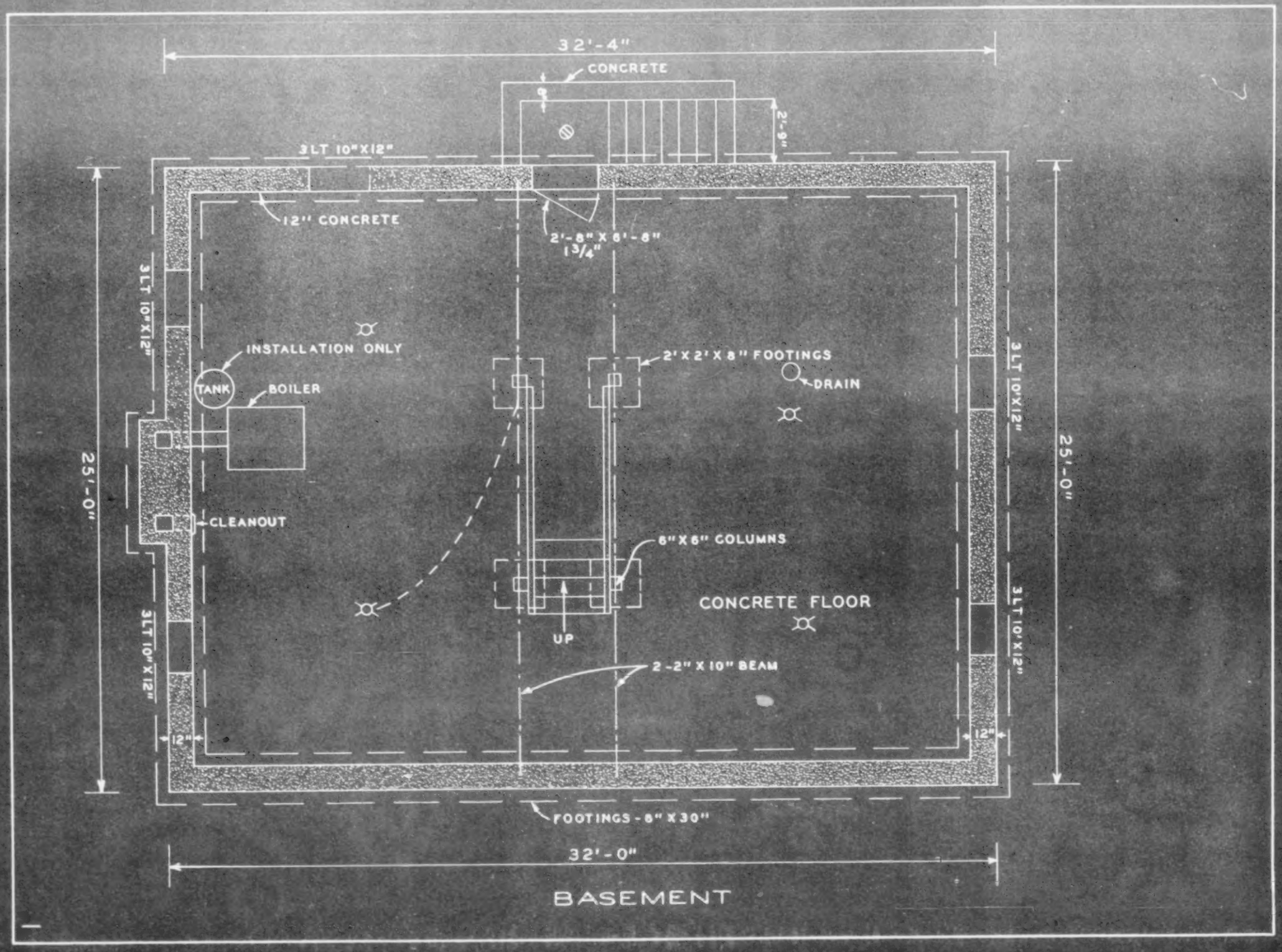
Painting. All exposed pipes in the cellar as well as any exposed unfinished cast-iron parts of the boiler shall receive two coats of approved smoke-stack black. All radiators, and any exposed pipes above the first floor level shall be thoroughly cleaned and receive two coats of approved heat-resisting radiator paint in color selected.

ELECTRIC WIRING

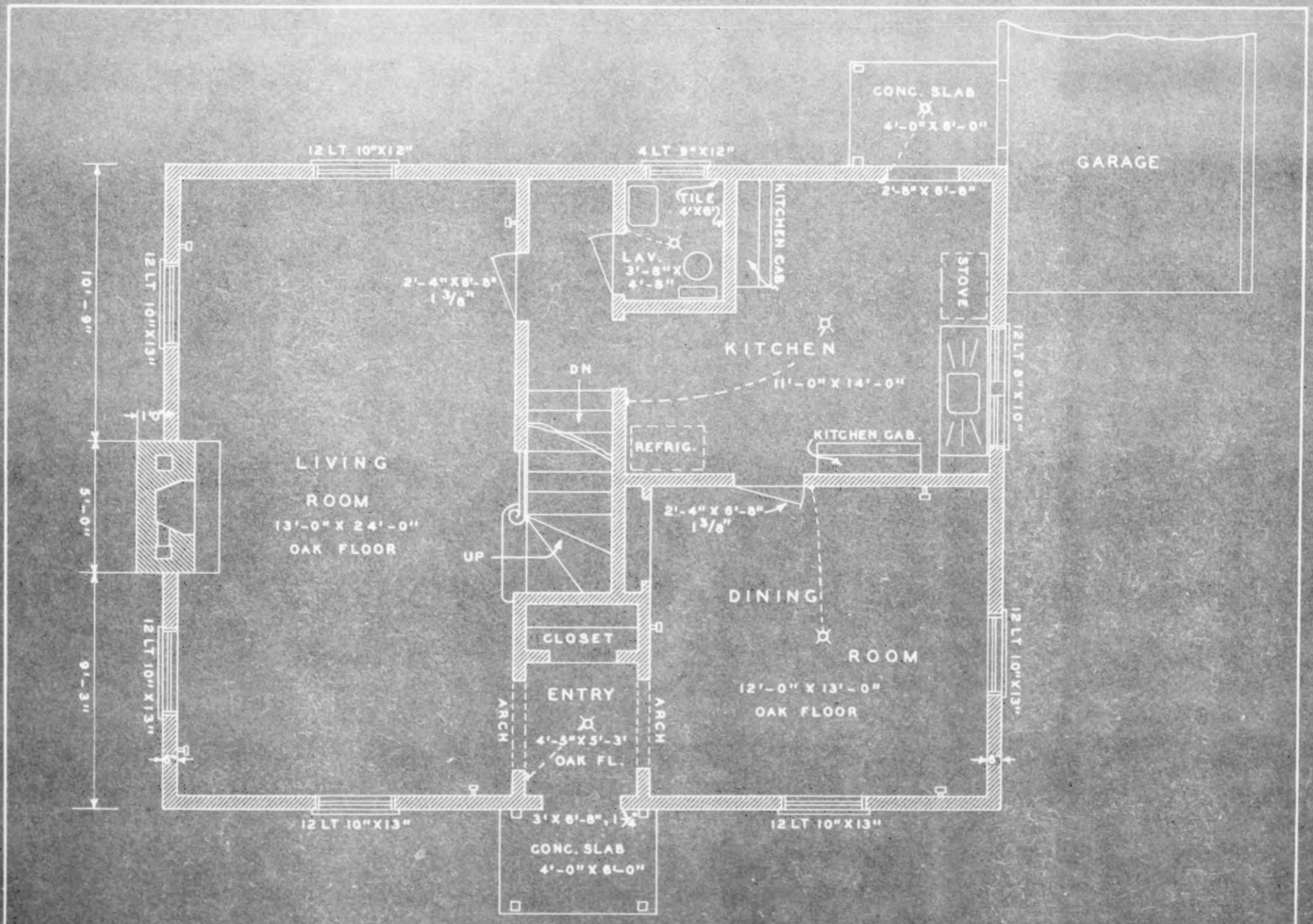
It is the purpose of this specification to describe a complete electrical installation. All material shall be of standard make and of quality and installed as required by the National Board of Fire Underwriters. All outlets shall terminate in approved metal boxes. Switches shall be of toggle type. All outlets other than for lighting fixtures and switches shall be equipped with standard duplex connections. Wiring to outlets shall be of approved-size B. X. cable of sufficient size to carry the circuit load.

Each circuit shall be switched and fused and extended to a central panel board. This contractor shall terminate all circuits at an appropriate meter and fuse board.

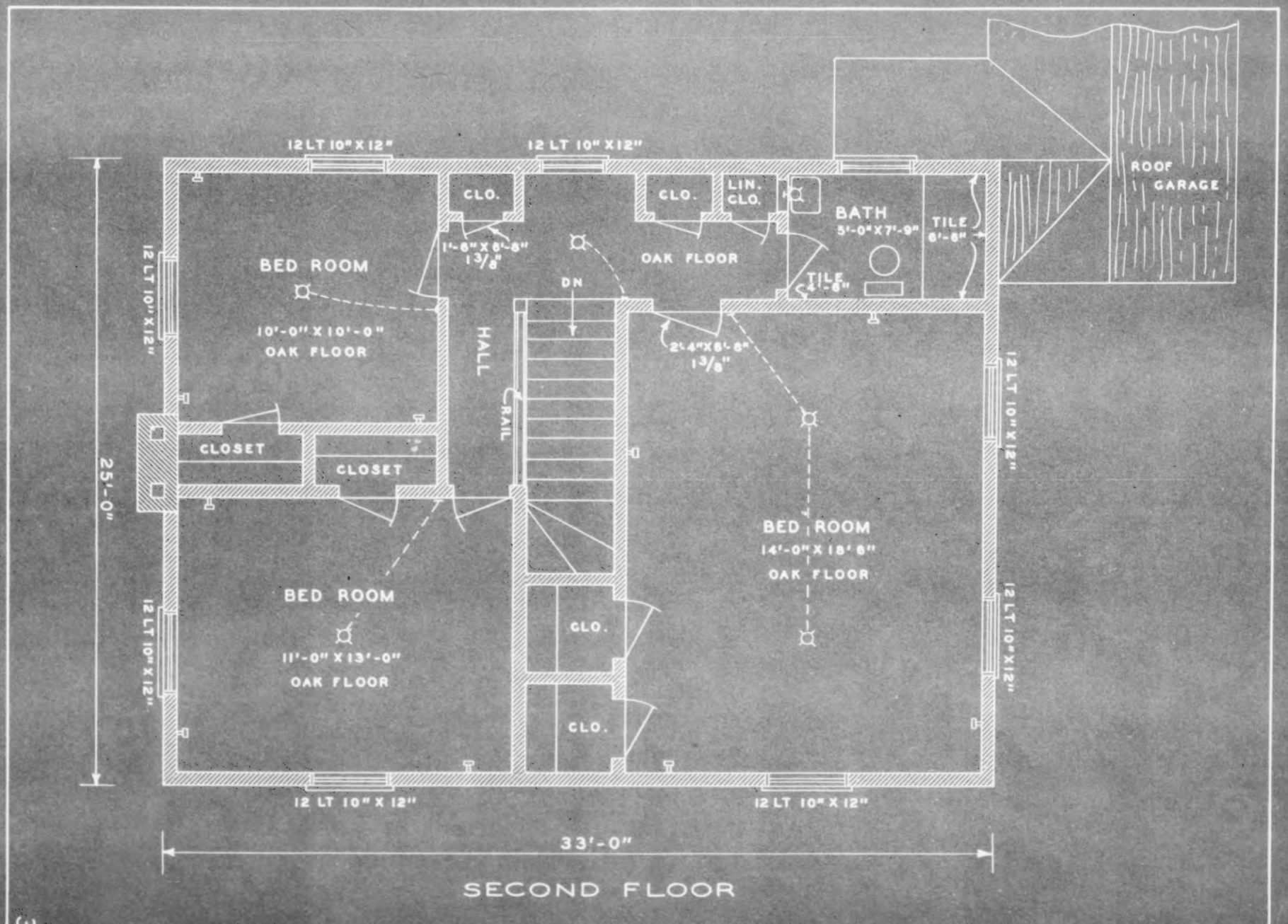
Connection from meter panel to public service lines is not included in this contract, nor are electrical fixtures and appliances provided.


32'-4"
CONCRETE
4"
2'-9"
3 LT 10"X12"
12" CONCRETE
2'-8" X 6'-8"
1 3/4"
3 LT 10"X12"
INSTALLATION ONLY
TANK
BOILER
2'X2'X8" FOOTINGS
DRAIN
3 LT 10"X12"
25'-0"
25'-0"
CLEANOUT
6"X6" COLUMNS
CONCRETE FLOOR
UP
3 LT 10"X12"
3 LT 10"X12"
2-2"X10" BEAM
12"
12"
FOOTINGS - 8"X30"
32'-0"

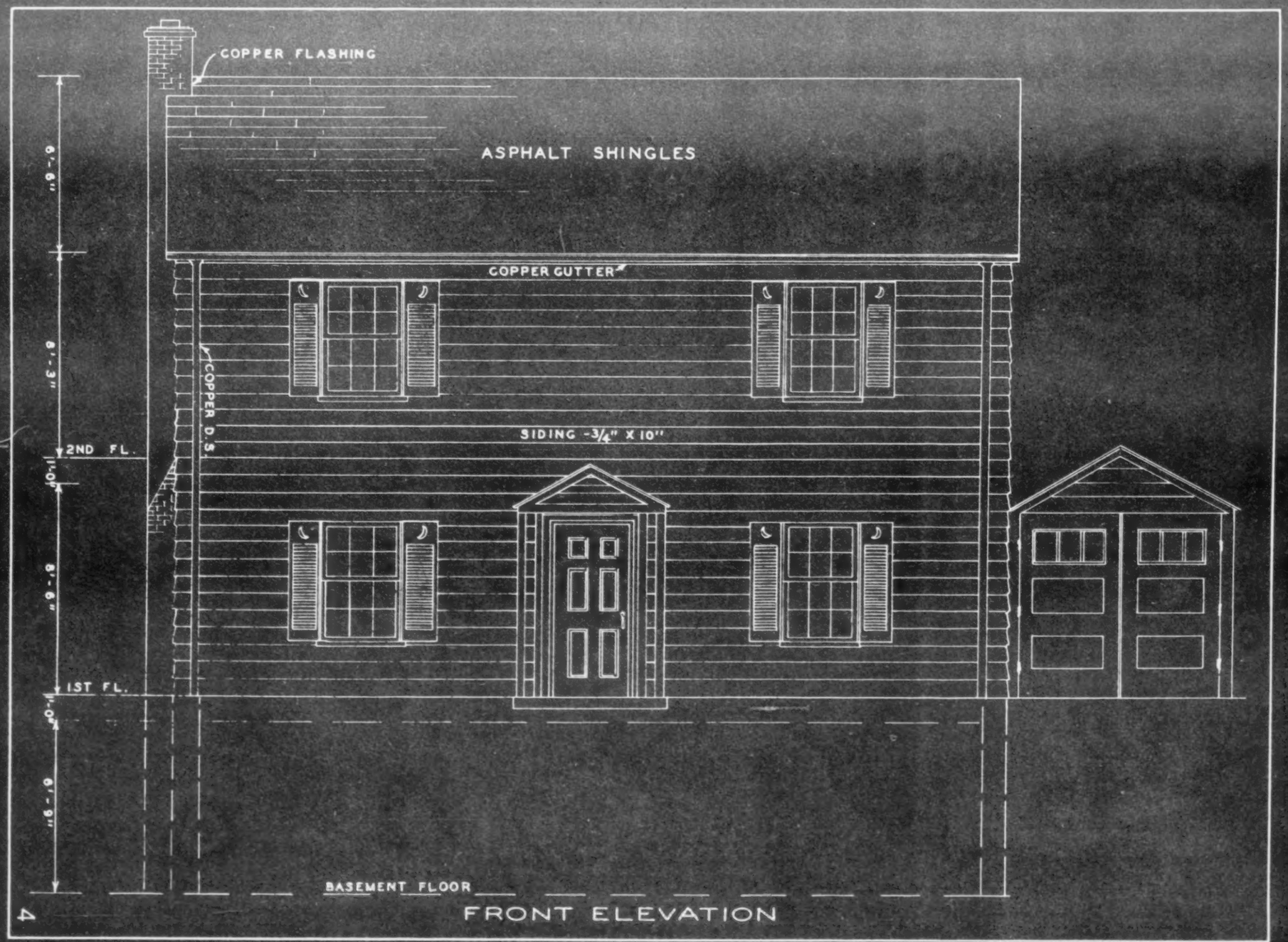
BASEMENT


CONC. SLAB
4'-0" X 8'-0"
GARAGE
12 LT 10"X12"
4 LT 8"X12"
2'-8" X 6'-8"
TILE
4'X6'
KITCHEN CAB.
LAV.
3'-8" X
4'-8"
STOVE
2'-4" X 6'-8"
1 3/8"
KITCHEN
11'-0" X 14'-0"
12 LT 8"X10"
12 LT 10"X13"
DN
REFRIG.
KITCHEN CAB.
LIVING
ROOM
13'-0" X 24'-0"
OAK FLOOR
2'-4" X 6'-8"
1 3/8"
UP
DINING
ROOM
12'-0" X 13'-0"
OAK FLOOR
CLOSET
ENTRY
4'-8"X5'-3"
OAK FL.
ARCH
ARCH
10'-6"
5'-0"
9'-3"
12 LT 10"X13"
12 LT 10"X13"
12 LT 10"X13"
3'X 6'-8", 1 3/4
CONC. SLAB
4'-0" X 6'-0"

FIRST FLOOR



SECOND FLOOR



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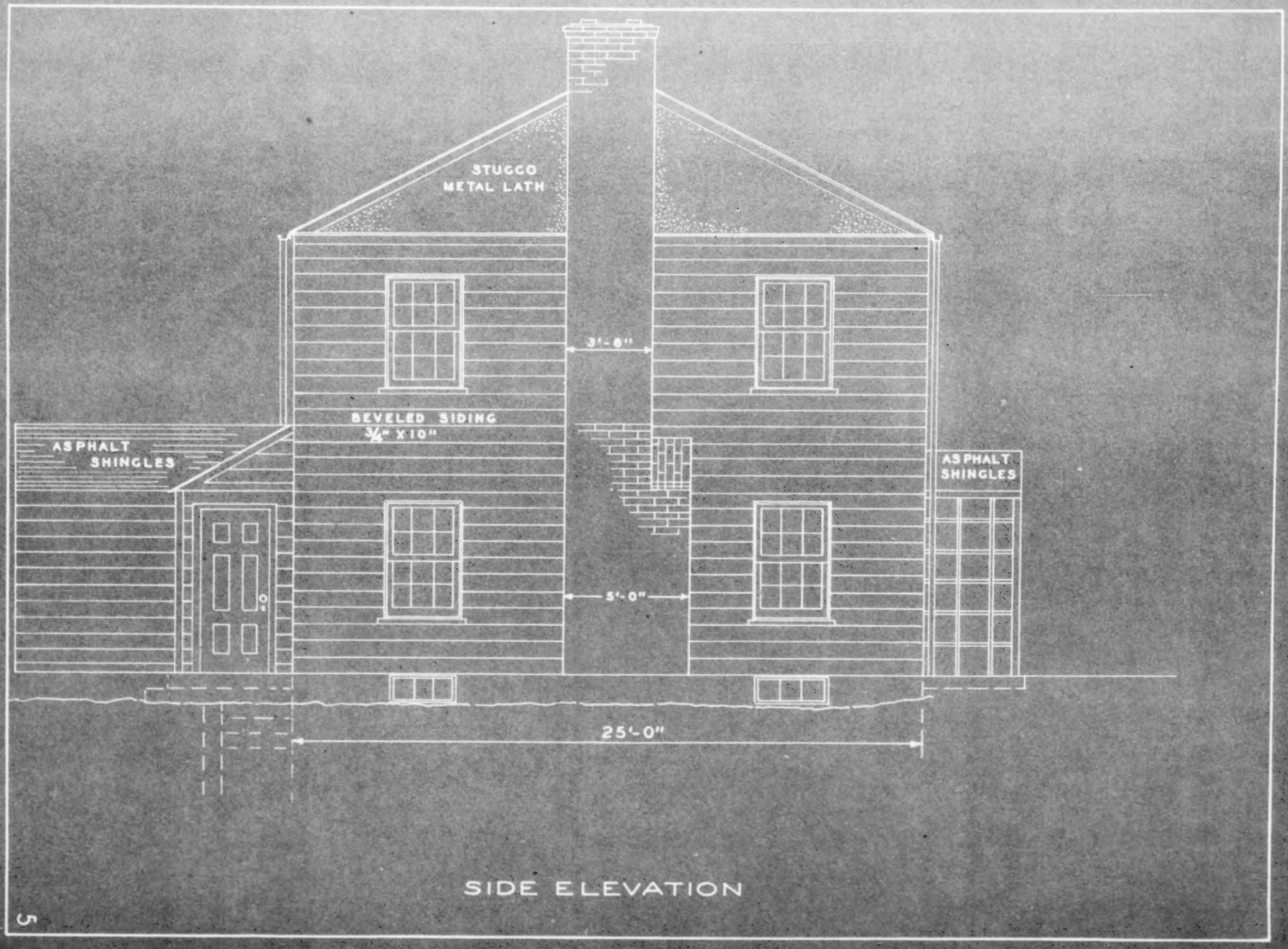
FRONT ELEVATION



SIDE ELEVATION

5